

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

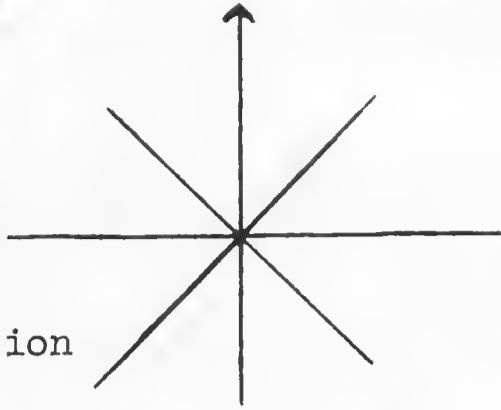
K. BALCOMB & TUXSON 14-16
CHAN & THOMPSON 16-17

Date 4 NOV, 1966
Pg. # 1

SPECIMEN
or

DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS	
1435					AT OUTSIDE BOUY COMMENCE WATCH LEAVING HONOLULU	
TF 1445	G. Frigate	14	⊙			
TF "	Red-footed booby	19	⊙		sitting on water lt phase, 1 imm.	
TF "	Pom Jaeger?	5	⊙		lt. phase	
"	Brown Booby	2	⊙		sitting on water, Ad.	
1450	Pom Jaeger	2	⊙		1 lt., 1 dark.	
TF 1455	G. Frigate	23	⊙		too far to tell sex	
1500	Pom Jaeger	2	⊙		lt phase, sitting on water	
TF 1505	" ?	18	⊙		feeding, flying like jaeger, but too far for pos. ident.	
" 1510	"	1	⊙		on water, then flew	
1525	Black-wing pet	1	NW		flying swiftly	
1527	Pom Jaeger	1	⊙		lt. phase	
1530	Blackwing pet	1	⊙		arcing	
"	pom jaeger	2	⊙		lt. phase	
1535	"	2	⊙		1 " , 1 int.	
1537	"	3	⊙		lt phase	
1537	Brown booby	1	⊙			
1540	wedgetail	15	⊙		lt phase	
FF	Common nodd	40	⊙		} feeding	
	Red footed booby	4	⊙			
	frigate Great	1	⊙			lt phase 3 ad, 1 imm.
1545	Blackwing	1	⊙			
TF 1545	Common nodd	1	NE			
	Wedgetail	1	NE		lt phase } traveling together	
1547	Red-footed booby	1	⊙		lt phase. ————— Rain squall begins	
1558	Pom JAEG.	1	⊙		lt ph.	
1615	JFP	3	cel		} IN RAIN	
1616	WEDGETAIL	1	cel			MILKING TOGETHER
1618	WRSP	1	cel			large - reaches?
1619	SHEAR/PET	1	cel			distort
1623	FRIG SP.	1	cel			
1653	WEDGETAIL	1	SW		lt ph. RAIN END 1650	
1658	"	4	N		lt ph.	
1702	SHEAR/PET	4	cel		distort	
1704	WEDGETAIL	3	N		lt ph.	



Ship
Direction

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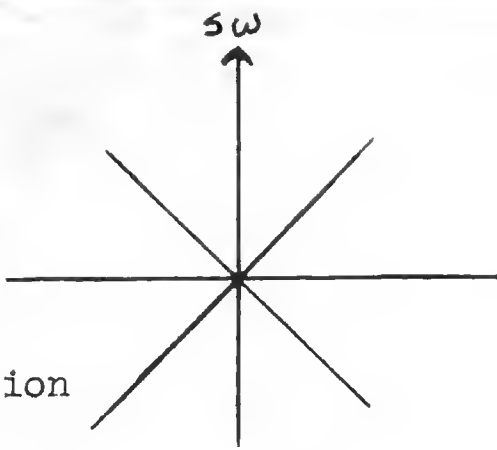
CHAN & THOMPSON 16-17

Date 4 Nov. 1966

Pg.# 2

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1705	Pterosp	2	ce		small
TF	1706	Wedgetail	22±3	N		no dark phase seen
FF	1707	Wedgetail shear/pet	175±25	ce		distort, wedgetails? dispersing + heading generally N
	1725	Shear/pet	1	@		
		Wedgetail	1	S		light phase
	1728	"	1	S		"
	1729	"	1	S		"
	1731	"	1	S		"
	1732	Pomarine Jaeger	2	W		1 adult, 1 subadult.
	1733	Wedgetail	1	S		dark phase
	1735	Hawaiian Noddy	1	@		standing on board
	1736	Wedgetail	1	S		light phase
	1742	Wedgetail	2	S		light phase
	1743	" "	3	S		" "
	1746	Wedgetail	1	S		light phase
	1754	Sun				Sunset close watch



Ship
Direction

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OBSERVERS:

HEIDEN & BALCOMB SR-0800

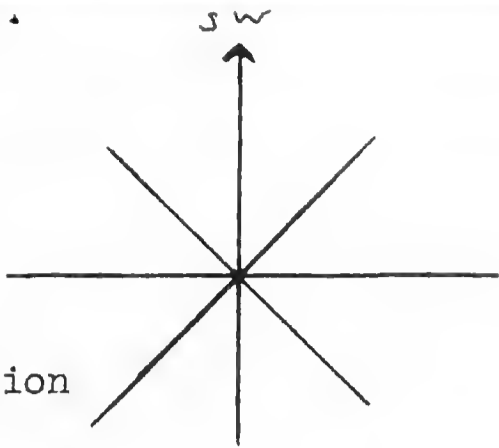
Date 5 NOV, 1966

Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0538					SUNRISE - COMMENCE OBSERVATIONS.
0544	Storm pet.	1	⊙		lighting poor, could not see w.r.
0544	BWP	1	NE		" , Reliability 3
0545	WEDGETAIL	1	⊙		LIGHT PHASE
0546	PTERO. SP.	1	E		small
0548	Sooty/slb:ill	1	SE		faint light underwing
0550	wedgetail	1	S		lt. phase.
0555	Shear-pet. WRSP	1	E		sooty/slb size & wingbeat - stiff, distinctive, white belly, narrow white u-wing.
0555	WRSP	1	⊙		
0610	Pterodroma	1	⊙		JFP size, arcing flight
0610					rain squall commencing.
0614	Bird	1			
0620	WRSP	1	⊙		rain squall ceaseth.
0635	WEDGETAIL	1	NE		LIGHT PH.
0650	BWP	1	NE		
0659	"	1	NW		
0659	Sooty tern	2	NW		adult
0659	Shear-pet	1	⊙		
0714	SHEAR-PET	1	⊙		
0717	SOOTY/SLG	2	SW		dark underwings dark underwings
0723	"	3	W		too far for underwing
0723	"	3	SW		"
0727	"	1	SW		
0730	SHEAR/PET	1	S		very distant
0745	BWP	1	NE		high arcing
0748	"	1	⊙		
0756	Shear/Pet.	1	⊙		
0803	WRSP	1	⊙		large
0804	Shear/Pet	1	S		
0805	GR. FRIG	1	⊙		Ad ♂
0807	P. EXTERNA	1	S		
0810	BWP	1	⊙		
SF 0811	Shear/PET	8	⊙		distant Pterodroma
0814	BWP	1	⊙		
0815	P. externa	1	SW		very distant
0819	SLENDERBILLS	1	S		
0824	BIRD	1	S		DARK ABOVE HEAD DARK WHITE NECK-COLLAR WHITE BELLY WHITE FLASH IN UNDERWING ONLY (JAEGER SP.)



Ship
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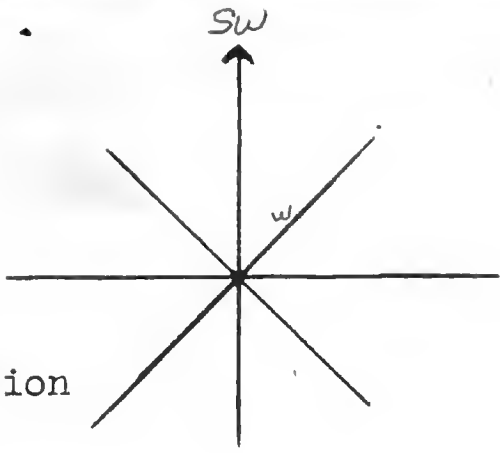
OBSERVERS:

FITCH E CHANDLER
10-12 - TOX - CROSSIN

Date 5 NOV. 1966
Pg.# 2

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0832	BWP	1	SE		
0835	S/SB	1	S		
0837	JAEGER SP.	1	SE		all dark med-large white on under wing only
0838	BWP	1	SE		
0840	JAEGER SP.	1	SE		
0852	S/SB	2	SE		underwings not discern. SOOTY SIZE + FLIGHT
0855	BWP	1	SE		
0858	WEDGE TAIL	1	SE		lt ph
0859	BWP	1	SE		
0900	SHARP/PET	1	SE		distant
0905	S/SB	1	S		underwings not vis.
0910	BWP	2	SE		
0917	S/SB	2	S		underwings not discernable
	BWP	1	S		
0918	BWP	1	NE		
0922	TERN SP.	2	S		
0933	S/SB	1	S		appeared all dark below
0934	BWP	1	SE		
0935	BWP	1	S		
0952	BWP	1	NW		
0953	"	1	N		
1010					sperm whales (<i>Physeter catodon</i>) at least 2 up to 35 ft.
FF 1010	Sooty Tern	2			adults. feeding over whales; considerable meandering back & forth over large area ca. 1000 yards across
	BWP	4			
	Sooty Tern				
1023	Pterodroma sp.	1	NE		
1027	Sooty Tern	2	E		adults.
TF 1028	Sooty/Sl. bill	48 ± 5	NE		
TF 1032	Slender Bill	14	SW		dark underwing
1045	W.T.S.	2	SW		1st, 1?
1045	Fairy Tern	1	SW		
1047	S/Sl.	1	SW		
1048	Sooty T.	1	SW		adult.
1049	Sooty T.	2	SW		adult
1049	B.W.P.	1	SW		
1055	Slender bill	1	SW		
1058	"	1	SW		dark underwing
1101	S/Sl.	1	SW		dark underwing
1103	S/Sl.	1	W		dark underwings.



Ship
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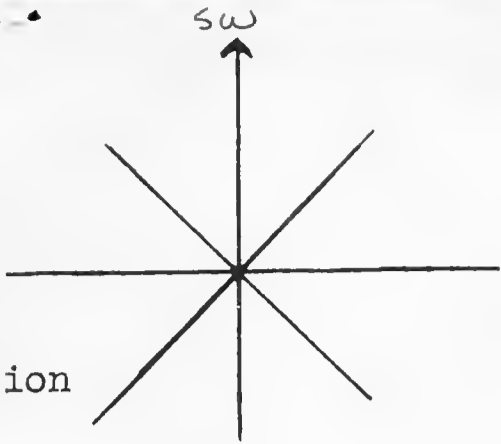
OBSERVERS:

10-12 - Tux - Crossin
12-14 Huber + Thompson
14-16 Fitch & Balcomb

Date 5 Nov 1966
Pg.# 3

SPECIMEN
or
Non Bird
(Diurnal)

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
T.F. 1110	S/SB.	17	ew		dark underwing.
1124	Slenderbill	1	ew		sitting on water.
1125	J.F.P.	1	ew		
1137	J.F.P.	1	ew		
1141	J.F.P.	1	ew		
1143	S/SB.	1	ew		
1144	Bulwer's	1	ew		
1146	W.R.S.P.	1	NE		use Leach's - and (Rel - #3)
1150	R.F.B.	1	ew		light phase.
1202	Frigate	1	⊙		
1215	RFB	1	S		Rain Squalls NW + W mottled, sub ad
1221	BB	1	NE		imm
1230					
1241	Slender Bill	1	SE		no light wing linings
1248					
1305	Shearpet	1	S		possibly JFP
TF 1310	BWP	4	W		Traveling light phase?
	Pterodroma				
	Kermadec Petrel	1			underwings mottled with brown ill defined white patch beneath belly - white Dorsal - Brown - slight white color on the Primaries dorsally
1312	Kermadec Petrel	1			light phase
1327	BWP	1	⊙		
1345	Slender-Billshearwater	1	S		Rain Squalls - SW dark underwing lining
1350	WTTB	2	⊙		flying around and over ship
TF 1425	Birds	50±300	⊙		we changed course to south for 14 minutes to pursue a flock strung out along the southern horizon. there was quite a batch of birds, but they ^{we} never came close to any of them. some sooty tern, jaeger, sooty/slbill, etc.
1428	Bird sp	1	⊙		
TF 1430	Sooty Slbill	5	SW		
1440	Bird sp.	1	⊙		on horizon
TF 1505	Sooty tern	2			Ad. } searching flock. rather localized swirling activity. terns staying high over water.
	Wedgetail	40±10			
	Shear-pet	20±10			
	mottled-pet	1			came in from NW to join flock.



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OBSERVERS:

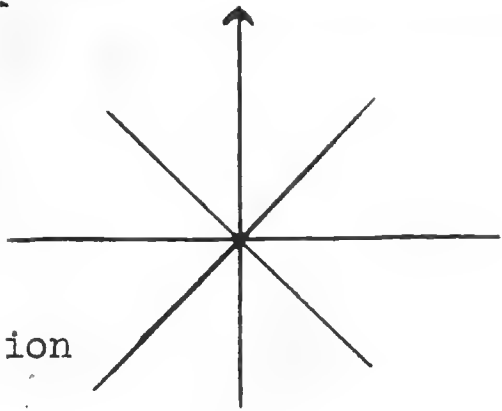
Fitch & Balcomb
14-55 - Tux + CHAN

Date 5 Nov

Pg.# 4

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF	1520	Sooty tern	2	SW		Ad.
		Shear-pet	20 ± 10	SW		probably 50% wedgetail
	1523	BWP	1	@		changing direction
	1532	BWP	1	NW		
	1538	Sooty Tern	1	NW		adult
	1540	Sooty Tern	1			
TF	1558	Sooty / Sb bill	25	SW		too far for underwing
TF	1604	"	22	SW		"
	1620	BFB.	2	SW		1 adult - feeding; 1 imm.
	1640	S/Sb	1	NW		too far for ident.
	1645	"	1	S		" " " "
	1655	WEDGETAIL	1	SW		et ph.
		BWP	1	SW		
	1702	SHEAR/PET	1	S		S/Sb?
	1708					SUNSET CLOSE OBS.



Ship
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OBSERVERS:

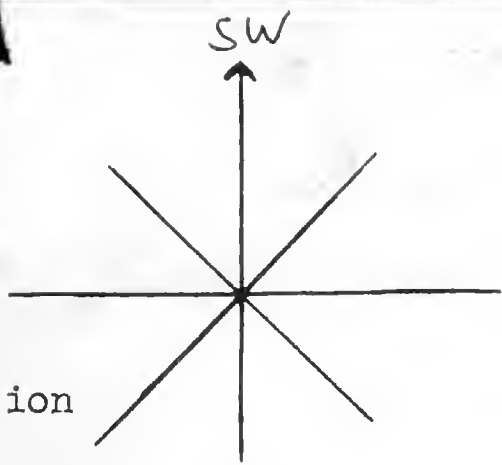
SD-0800 CHAN & MAYER

Date 6 Nov. 1966

Pg.# 1

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0555					SUN BEGIN
	0556	S/SB	4	S		dh?
	0558	S/SB	3	S		dh?
TF	0602	S/SB	9	S		dh.
	0604	Shear/PET	2	CE		
TF	0610	S/SB	25±5	S		not seen well
	0612	JFP	1	CE		
TF	0616	S/SB	20	S		dh. underwing
TF	0622	S/SB	25±5	SW		dh. "
	0623	WEDGETAIL	1	CE		dh?
	0625	S/SB	1	S		
	0626	BWP	1	m		
	0628	P EXTERNA	1	CE		following ship
	0630	PTER. S.	1	CE		
TF	0631	S/SB	12	S		ALL GRAY BELOW ^{AND ABOVE} SIZE BETWEEN BWP & MOTTLED
	0632	"	2	S		
TF	0633	SLANDBILL	18	S		
TF	0634	"	15	S		
TF	0637	S/SB	60±10	S		
	0640	WEDGETAIL	1	CE		light ph.
	0644	P EXTERNA	1	CE		
	0647	BWP	1	CE		
TF	0649	SLANDBILL	60±10	S		dh. und.
	0651	WEDGETAIL	1	CE		lt ph.
TF	0654	slandbill	65±10	S		
TF	0655	"	10	S		
TF	0656	"	20	S		
TF	0657	"	18	S		
TF	0659	"	35	S		
TF	0701	S/SB	20±5	S		
	0702	BULLERS	1	NE		
	0710	Sooty/SB	25	S		
	0711	Sooty/SB	25	S		
	0712	"	30	S		



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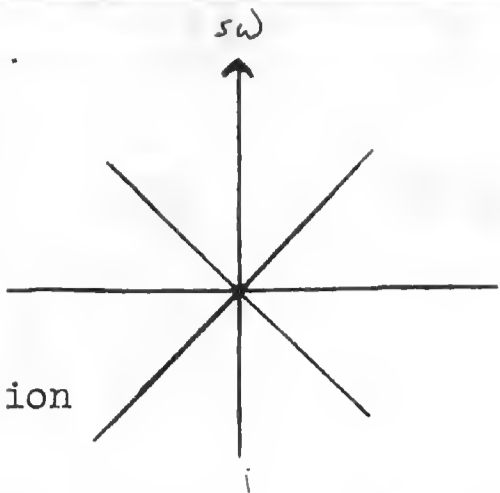
CHAMBERS HEIDEN SR-0800
Tux & Huber P-1000

Date 6 NOV. 1966
Pg.# 2

SPECIMEN
or

Ship
Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0717	Slender-bill	100 ± 10	S		
0717	PTER SP.	1	ca		small
0718	" "	1	ca		WWP?
0720	WEDGE TAIL	1	S		lt ph
0721	PTEROSP.	1	ca		large
0725	P. EXTERNA	1	ca		following
0728	WEDGE TAIL	1	ca		lt ph.
0734	SHEAR/PET	1	ca		WEDGE? distant
0740	RT+B	1	ca		sitting on H ₂ O - ENTER SQUALL
0800	J.F.P.	1	NE		
0801	J.F.P.	1	SW		LEAVE " AT 0755
0805	WRSP	1	ca		
0806	MOTTLED	1	ca		
0807	Slenderbill	8	S		
0813	P+externa	1	ca		
0813	mottled	1	S		
0831	SLENDERBILL	2	ca		sitting on water
0837	BWP	1	ca	2510	collected Huber ♂ MOLT PRESENT
0840	BWP	1	ca		
0846	JFP	1	ca		
0903	KERNADEC	1	ca		underwing pattern noticed - white patch @ wrist.
0908	S/SB	115	S		
0910	widgetail	1	ca		
0912	mottled	1	S		
0912	BWP	1	NE		
0915	Mottled	2	SW		
0922	JFP	1	NE		sitting on H ₂ O - Light phase
0924	widgetail	1	ca		
0930	JFP	1	NE		
0932	BWP	2	NE		
0937	Shear/pet	1	NE		
0940	slender bills	10	SW		little arcing.
1003	slender bills	52	S-SW		all appeared dark and wing, small, swift - little arcing
1004	BWP	1	SW		
1006	JFP	1	S		



Ship Direction

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OBSERVERS:

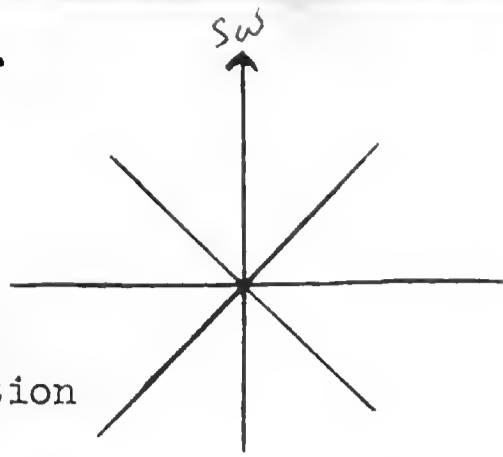
Crossin - Thompson 10-1200

Date 6 November '66
Pg. # 3

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1015	Sooty/shear	3			silver underwings, appeared by size + flight to be sooties.
1022	BWP	1	☉		
1024	shear/Pet	1	☉		
1025	Mottled	1	sw		some arcing.
1025	Sooty/sb.	15 ± 3	sw		tight grouping, prob. slender-bills.
1027	BWP	1	S		
1027	Tern g.	1			probably arctic tern, flying unlike any of the common Pac. species. about right size and color for arctic, although light was bad.
1030	Mottled	1	sw		
1036	sooty/sl-bill	40 ± 5	sw		
1042	" "	120 ± 10%	sw		too far out to tell much of anything.
1043	WWP	1	☉		
1046	Small Pterodroma	1	☉		on the water with large fish - flew a short distance with the fish and settled again on the water.
1047	Tahiti P.	1	☉		Rel. 2 } Rain Squall
1052	BWP	1	☉		
1102	BWP	1	☉		
1103	wedgetail	1	NE		light phase.
1107	SFP	1	SE		Rain Squalls SE → SW
1110	SFP	1	☉		
1115	Pterodroma	1	☉		
1130	Leach's P.	1	E		
1137	Sooty Shear.	1	☉		light underwing lining
1138	SFP	1	☉		
1140	WNP	1	NE		
1141	BWP	1	NE		
1229	Sooty/Slbill	112	S		dusky white underwing.
1229	WRSP	1	☉		prominent white rump
1237	Sooty/Slbill	13	S		dusky white underwing
1249	Golden Plover	1	☉		not banded
11	BWP	1	☉		
1250	WRSP	1	☉		
1250	Small Pterodroma	1	☉		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

CHANDLER-BALCOMB 1200-1400

HEIDEN-FITCH 1400-1600

Date 6 NOV, 1966

Pg.# 4

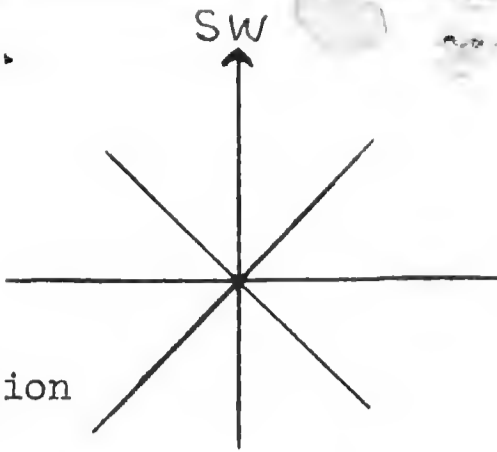
SPECIMEN
or

Ship
Direction

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1250	S/SB	2	SE		
1254	RFB	1	NE		
1255,	BIRD SP	1	cel		SOB AD at edge of rain
TF 1300	S/SB	35 ± 10	cel		milling about on H ₂ O many switching back to north, not being influenced by ship - In front of heavy rain squall.
1302	PALE FOOT? Sh.	1	S		Bill color not seen
1304	BWP	1	cel		
1305	JFP	1	cel		
TF 1315	S/SB	225 ± 25	S		NO SOOTY'S OBS.
TF 1320	"	5	SW		
1327	"	2	S		RAINS SQUALL 5 MI
TF 1340	Slend bill	175 ± 25	S		confused by ship, milling, sitting on H ₂ O
1342	PEXTERNA	1	cel		tight flock
1346	PIN TAIL	1	⊙		♀ flushed off H ₂ O, flew N 200 yds landed again
1355	Slend bill	50 ± 10	S		
1356	PEXTERNA	2	cel		
1356	BWP	1	cel		
TF 1406	SOOTY/SB	15	S		Traveling
TF 1407	"	15	S		traveling
1409	Sooty/SI.	10	S		traveling
1410	Sooty/SI.	1	NE		
1411					rain squall - 1/2 mi. S
1412	SOOTY/SB	2	S		
1413	PTERODROMA SP.	1	S		WHITE PATCHES ON EACH WING; WHITE RUMP AND/OR TAIL. REST OF BACK GRAY LIGHT UNDERWINGS; BORDER NOT DISCERNIBLE
TF 1415	SOOTY/SB	25	S		travelling
TF 1416	"	15	S		"
TF 1417	"	5	S		setting on H ₂ O
1420	BWP	1	NE		travelling
1422	GREATER FRIGATE	1	⊙		ad. ♂
1423	SOOTY/SB	4	S		
1427	Sooty/SI.	3	⊙		
1430	Sooty/SI.				Rain squall
1431	Sooty/SI.	60 ± 5	⊙		travelling milling about in squall





Ship Direction

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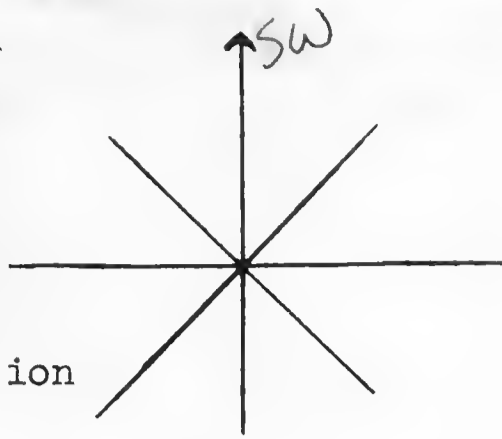
OBSERVERS:

HEIDEN & FITCH 1400-1600
1600- Hulse + Thompson

Date 6 Nov. 1966
Pg. # 5

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF	1440	SOOTY/SL	400±20	S		travelling in long string; concentrations of 20-30 birds with
TF	1441	"	50	S		numerous stragglers in between
TF	1442	"	50	S		TRAVELLING
TF	1443	"	20	S		TRAVELLING
TF	1444	"	17	S		"
TF	1445	"	27	S		"
	1448	RFB	1	S		"
	1450	SOOTY/SL	40	S		following ship; shot but lost in squall; 1mm.
TF	1455	SOOTY/SL	40	S		travelling
	1500	SOOTY/SL	40	S		SQUALL
	1502	"	20	S		milling about in squall
	1503	"	10	S		" " " "
TF	1505	"	12	S		" " " "
	1520					Travelling
	1521	WRSP	1	N		END OF SQUALL
	1523	JFP	1	N		black LINE THROUGH RUMP PATCH
	1530	JFP	1	N		
	1532	Wedgetail	1	⊙	2511	17 pl collected by R. Heiden NOMOLT PUMAGE? ♂
	1539	BWP	1	N		
	1545	WEDGETAIL	2	⊙		light phase
	1545	PTERODROMA SP.	2	⊙		large
	1548	WEDGETAIL	1	N		light phase
	1549	PTERODROMA SP.	1	NE		
	1552	Porpoise	15	NE		
	1555	Tropicbird sp.	1			<u>Sterna rostrifera</u> (Hawaiian Spinner)
	1601	Slenderbill	18	N		following porpoises
	1603	Tropicbird (Whitetailed)	1			travelling
TF	1611	Slenderbill	11	⊙		travelling flock.
	1614	"	1	S		
	1614	Mottled Petrel	1	S		
	1627	Sooty tern	3	E		
	1627	Frig sp	2	⊙		
	1627	JFP	1	⊙		
TF	1627	SOOTY/SL	60	S		travelling flock.
	1630	WRSP	1	SW		
	1631	BWP	1	NE		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

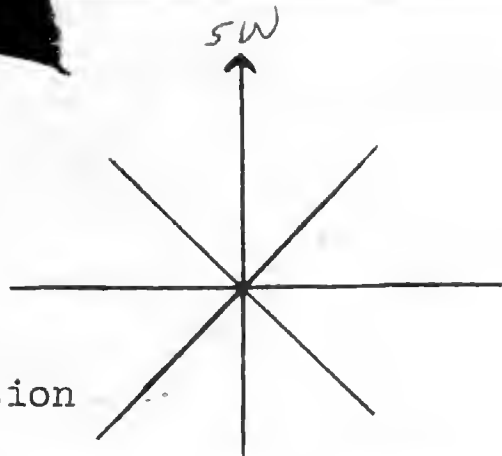
OBSERVERS:

Huber & P. ...

Date 6 Nov. 1966
Pg.# 6

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1650	JFP	1	NE		
TF	1654	Slender b. lb	30 ± 5	SE		} Rain Squall Traveling
	1716	"	24	S		
TF	1725	"	30	S		traveling along edge of rain squall
	1729					sunset - close watch



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SR - 0800 Crossin + Huber

Date 17 Nov. 1966

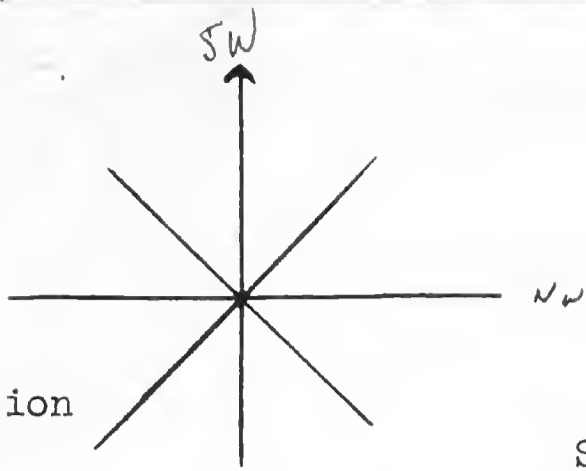
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0604					Sunrise - begin obs.
0612	wedgetail	1	ee		light phase - playing in front of beam.
0617	JFP	1	ee		flying at times with wedgetail.
0630	JFP	1	NE		
0632	BWP	3	NE		
0632	WRSP	2	NE		
0632	JFP	1	NE		
0637	sooty/sld	2	S		silvery underwings
TF 0640	sooty/sld.	14	S		traveling flock.
0643	shear/pet	1	S		possibly wedgetail
0645	Pt externa	1	NE		
TF 0652	Slenderbill	5	S		
0657	BWP	2	⊙		
TF 0658	Slenderbill	29	S		traveling flock.
SF 0658	wedgetail	7	⊙		light phase. - searching flock.
0702	Slenderbill	1	S		
0703	Jaeger sp	2	N		possibly imm longtail from size + color
0706	shear/pet	1	NW		possibly wedgetail
0709	BWP	1	⊙		
0710	sooty/slenderbill	3	S		
0713	WNP	1	N		
0713	Pt externa	1	N		
0714	Slenderbill	1	S		
C 0715	JFP	1	e	2512	collected. LNH. #2512
0717	WTTB	1	⊙		checking over downed JFP.
0718	JFP	1	ee		
0718	wedgetail	1	sw		light phase
0735	BWP	1	⊙		
0738	JFP	2	sw		
0740	BWP	2	⊙		
0745	JFP	1	⊙		
TF 0750	Slenderbill	5	sw		traveling flock
0755	BWP	1	N		

Rain squalls about entire horizon; partly cloudy overhead



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Non Isid
(DIURNAL)

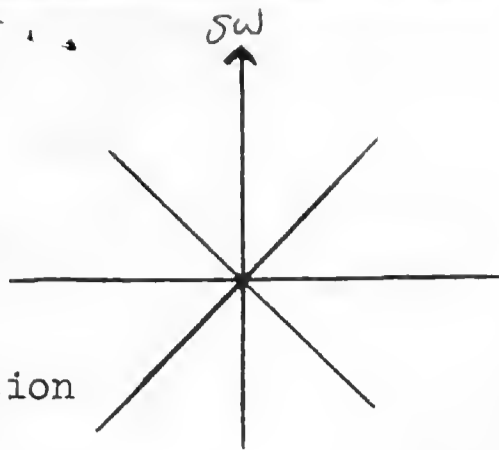
OBSERVERS:

06-0800 Hubert Cropper
8-1000-Tony & Thompson.

Date 7 Nov
Pg.# 2

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0804	WEDGETAIL	1	see		light phase
0805	WNP	1			
0806	BWP	1	N		
0825	Sooty Shearwater	1	N		
0832	BWP	1	S		light underwing lining
0833	GR. FRIG.	1	NE		
0839	Sooty? Shearwater (Slender)	1	NE		adult female.
0840					SKIFFOUT
FF 0850	JFB	1	see	2513	
	Slenderbill	2	see		} feeding collected RSC SKIFF collected 2 BWP RSC SKIFF " 1 KP " "
	BWP	5	see	2527, 2528	
	Shearwater	1	see	2515	
TF 0858	S/SB	12			traveling
0900	BWP	2			
0901	WRSP.	1	see		
0902	Pterodroma sp.	1	NE		
C 0904	JFP	2		2514	1 collected RSC SKIFF
C 0904	BWP	2		2519	" " " "
0904	RFB	1	see		light phase
0916	Slenderbill	1	see		dark underwing.
C 0921	JFP	1	see	2516	feeding - sitting on water
0921	BWP	1	see		" " " "
0923	JFP	1	see		
0924	Shear/Pt.	1	see		
C 0926	J.F.P.	2	see	2517	coll. RSC SKIFF
C 0935	J.F.P.	1	see	2518	" " " "
TF 0937	S/SB	20±4	see		traveling
0942	Pterodroma sp.	1	see		medium eye - dark border on underwing.
0947	BWP	1	see		
0948	RTTB	1	see		
0949	J.F.P.	1	see		feeding.
0956	W.R.S.P.	1	see		
C 1000	J.F.P.	1	see	2520	collected RSC SKIFF.
1007	Pt. externa	1	see		
C 1011	J.F.P.	1	see	2522	" " " "
C 1015	WTTB	1	see	2524	" " " "
C 1027	J.F.P.	1	see	2525	" " " "
1028	J.F.P.	1	see		
C 1030	J.F.P.	1	see	2526	" " " "



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

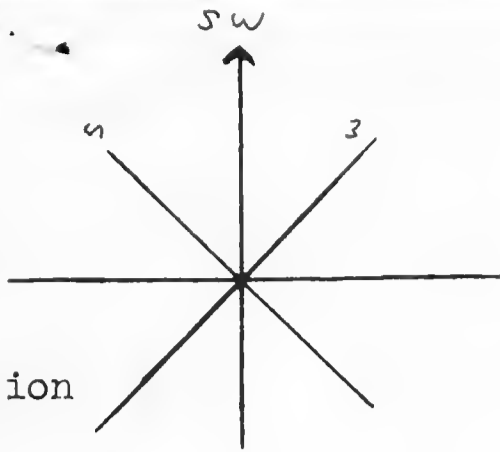
10-12 - Balcomb + Tux
12-14 HEIDEN + TUX
14-16

Date 7 Nov 66
Pg. # 3

SPECIMEN
or

Diurnal
Non-grab.

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
C 1030	Pterodroma sp.	1	sw	2	large black borders on underwing - but <u>not</u> B.W.P.
C 1035	B.W.P.	1	sw	2521	coll. RSC - skiff
C 1039	B.W.P.	1	sw	2523	" " "
1044	RTTB	1	sw		
C 1045	Leache's	1	sw	2530	coll RSC skiff
C 1050	B.W.P.	1	sw	2529	" " "
TF 1051	S/Sb.	6	E		travelling
TF 1052	"	8	S		
C "	JUAN FERN	1	⊙	2532	collected by tuxson
"	Sooty/Sibill	17			sighted by skiff
C "	BWP	1		2531	coll cross in skiff brought in
1105					
1143	Sooty/Sibill	18	SW		too far for underwing
1149	JFP	1	⊙		
1153	sooty/Sibill	1	⊙		white underwing
1217	"	2	S		dark underwings
1220	TERN SP.	3	⊙		distant
1221	SOOTY/SB	1	S		
1221	PTERODROMA SP.	1	S		
1222	JFP	1	⊙		
1224	B.W.P.	1	⊙		
1227	BWP	1	⊙		
1235	BWP	1	⊙		
1238	WRSP	1			sitting on H ₂ O
1240	JFP	1			
1310	JFP	2			
1317	BWP	1	⊙		
1318	BWP	1	⊙		
1325	SOOTY/SB	38	S		dark underwing
1327	BWP	1	⊙		
1358	RTTB	1	sw		sitting on water
1400	JFP	1	⊙		
1411	sooty tern	1			ad. dove at 2-3 animals lying just beneath surface of water.
1412	Gv. Frigate	2	S		1 ad. ♂, 1 imm. or ♀.
1423	BWP	1	⊙		
1428	"	1	⊙		
1431	"	2	S		
1434	"	1	CP		
1435	JFP	1	⊙		
1442	BWP	2	⊙		
1448	SHEAR/PET	1	⊙		large, light below dark above, poor light conditions?
1449	BWP	1	⊙		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

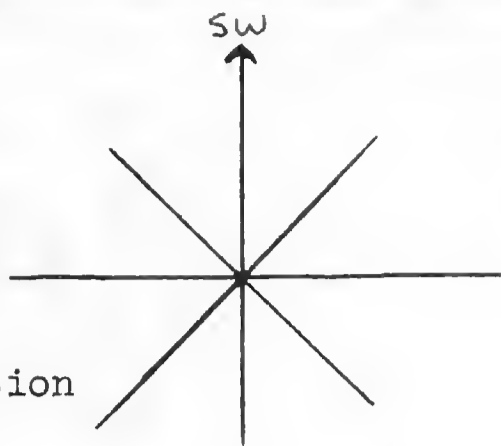
CHAN 14-16

Date 7 Nov. 1966
Pg.# 4

SPECIMEN
or

Ship
Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1456	SHEAR/PET	1	NE		small distant prob. BWP
1505	BIRD SP.	1	S		distant
1512	PTEROD. SP.	1	NE		small BWP type
1515	BWP	1	SW		
1521	S/Sb	1	S		underwings not seen slender bill shape
1532	JFP	1	☉		
1537	BWP	2	☉		
1542	JFP	1	☉		
1544	KERMADEC	1	☉		flushed, dark breast, light belly
1550	BWP	1	☉		
1614	"	1	☉		
C 1625	"	1	☉	2533	coll KCB
1635	JFP	1	☉		
1635	Ptero. sp.	1	☉		prob JFP. very far for id.
1641	BWP	1	☉		
1649	WRSP	1	☉		patterned four times & flew through
1655	BWP	1	☉		
1657	Tropicbird sp.	1	SW		
1705	Tropicbird sp.	1	☉		sitting on water
1713	S/Sb	1	S		Slenderbill shape - underwings not seen
1715	BWP	2	N		
1716	Ptero. sp.	1	☉		too far away for identification
1722	" "	2 1	S		" " "
1732	Sooty/slb	7	S		too far for underwing
1732	JFP	1	☉		
TK 1735	Sooty/slb:ll	5	S		"
1742					Sunset - diurnal observations ceaseth.



Ship
Direction

NOCTURNAL
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

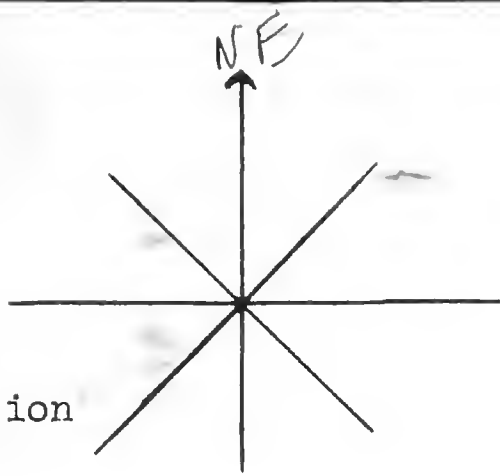
Date 7/8 Nov. 1966
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1742					Sunset - nocturnal observations commence
1744	JFP	1	N		
1745	BWP	1	SE		
1752	S/SI.	1	N		
1753	BWP	1	⊙		School of small fish seen in vicinity of BWP and JFP - birds not feeding
1753					
1754	Juan Fernandez	3	⊙		
1757	Juan Fernandez	1	S		
1806	SHEAR/PET	1	⊙		LARGE
1910	"	1	⊙		
1930	"	1	⊙		
1935	PTERO.	1	N		large; almost certainly JFP
1948	BWP	1	⊙		FOLLOWING SAIP
1957	SHEAR/PET	1	⊙		
1921	PTERODROMA	1	⊙		PTERO sitting on H ₂ O
2200					
2207	Bird	1			white, possibly tropicbird
2208	"	1			on H ₂ O, white possibly Tropic.
2223	"	1			" " "
2230	Pterodroma	1			" " "
0110	Pterodroma	1	E		light below, flew along at range of light for a few minutes.
0120	Pterodroma	2	E		Size at BWP - probably this species
0210	Bird	1			BWP? same size
0250	Bird-Tern?	1			Not a flying tern but some kind of Bird
0258	BWP	1	S		a Sooty TERN? White underparts - Flying like a TERN
0315	"	1	⊙		
0332	SOOTY TERN	2	SE		had up immature, both calling
0530	PTERO SP.	1	N		in lt. rain
0615					RISE
0615	BWP	1	S		SUNSET, CLOSE NOCTURNAL
0617	Wedgetail	1	⊙		
0625	Mottled	4	⊙		→ transferred to diurnal sheet

change course due
N to Sand Johnston
to pick up
oil cooler for
generator
Nov.
120 mi
S Johnston



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG # E

SPECIMEN
or

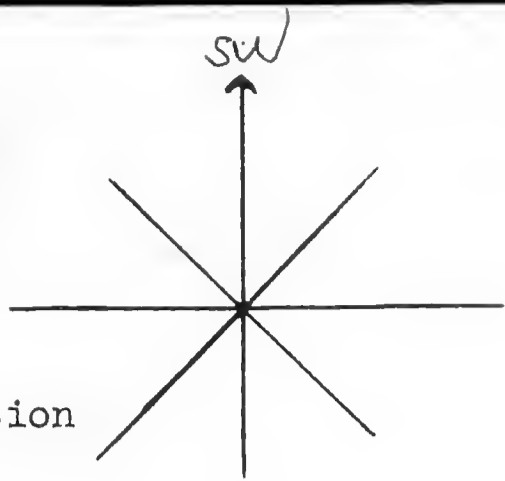
N. Bird
diurnal

OBSERVERS:

0600-0800 - Huber-Fitch

Date 8 Nov, 1966
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0615					sunrise very cloudy rain squall in most directions
0615	BWP	1	S		
0617	Wedgetail	1	S		light
0625	Mottled	1	SW		
0627	Wedgetail	1	S		light
0630	" "	1	S		"
0637	BWP	1	N		
0642	Wedgetail	2	W		light
0655	Slenderbill	1	S		
0658	BWP	1	W		
0709	Shear/pet	1	S		possibly JFP
0723	Slenderbill	1	S		
0723					
0726	Wedgetail	1	W		light phase
0728	Slenderbill	1	S		
0737	Juan Fernandez	1	S		
0748	" "	1	⊙		
0749	Sooty Slenderbills	4	S		
0810	BWP	1	⊙		
0812	Shear-pet	1	S.		
0830	Wedgetail	2	E		lt. phase.
0835	" "	1	W		"
0835	Sooty tern	1	N		ad.
0836	JFP	1	S		
0844	Shear-pet	1	JW		brief look - prob sooty/S/bill
0854	Pterodroma sp.	1	⊙		white belly. id. by flight.
0857	G Frigate	1	⊙		♀
0907	Brown booby	1	NE		toward Johnston. island plainly visible
0908	wedgetail	1	NE		" " lt. phase
0932	" "	1	⊙		"
0932	Shear-pet	1	⊙		
0950					near fishing boat off Johnston. ⊙ 3 miles from island just off buoy - cease observations



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

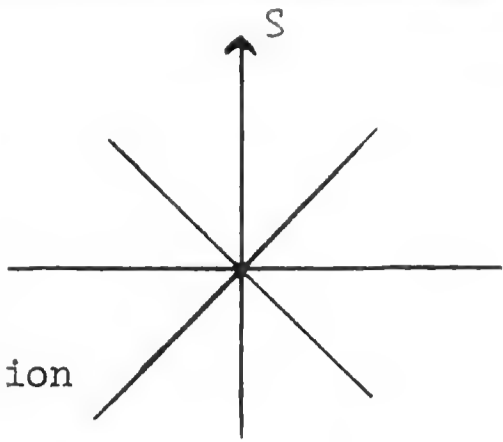
SPECIMEN DIURNAL NON-GRID
or

OBSERVERS:

15-1600 CHAN & FITCH
16-1800 - Tux & Huber

Date 11 Nov. 1966
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1520					LEAVING JOHNSTON ATOLL (CA. 1/2 MILE)
OS 1520	GR. FRIG	2			BOTH AD ♀ 1 w/ ORANGE STREAMER II 8 BODY SITTING
OS 1521	BB	2			ads. 1 w/ old streamer
1523	WEDGETAIL	1	SE		lt. ph.
1526	C NODDY	3	E		subadult orange streamer
OS 1527	BB	1	NE		orange streamer
OS 1528	C NODDY	1			
1529	GR. FRIG.	3			
1530	C NODDY	2			
OS 1531	BB	2	cell		1 ORANGE STREAMER adult
1533	BB	1	NE		
OS 1535	BB	1	NE		old orange streamer
1536	C NODDY	1	cell		
1558	BIRD	1	cell		FAIRY TERN OR TROPIC BIRD
1610	Shear/Pet.	1	cell		
1610	WRSP	1	cell		
1615	Leach's	1	cell		
1621	Wedgetail	1	cell		close enough to see field characteristics
1630	Wedgetail	2	cell		light phase - no orange streamer
1631	Bird sp.	3	cell		blew into sun and unable to identify.
1638	Sooty Tern	2	cell		adults
1638	J.F.P.	1	cell		
1640	C. Noddy	1	N		
1703	Wedgetail	1	W		
1728	Shear/Pet	1	W		
1743	S/SB	1	S		
1744					Sunset



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

16-18 - Tamm & Heide
18-21 HEIDEN
21-24 Crossin
25-0300 Phonon

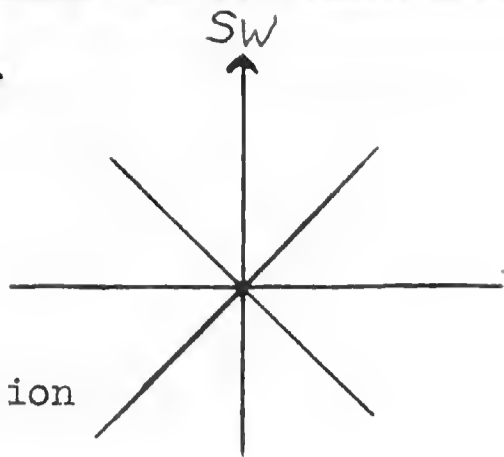
Date ¹¹⁻¹² 11 Nov 1966
Pg. # 2

SPECIMEN
or

Nocturnal

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1744					sunset; begins nocturnal observations
1826	PTERODROMA SP.	1	N		
1838	"	1	S		large
1905	SHEAR/PET	1	N		small; light underparts
1938	"	1	SW		large
2005	"	1	W		small
2030	"	1	S		
2035	JAEGER SP.	1			large, dark bird (underparts & back) following ship 6' above bow; dropped off & seen as it passed by spotlights
2047	SHEAR/PET	1	S		
2049	"	1	S		
2054	"	1	S		
2103	"	1	S		white below, flew + size right for Black-wing or any similar-sized species.
2112	Pterodroma	1	S		white bellied large.
2123	Shear Pet	1	S		could well have been large Pterodroma, but too far out in the edge of light to see distinctly.
2155	small Pterod.	1	SW		adults -; circling overhead.
2315	Sooty terns	3	SW		fluttered about side light, then flew aboard.
2315	Leach's S.P.	1		2534	small, prob. Black-wing. Field # 2534 captured by dier.
2345	Pterodroma	1	SW		Small Type - white below with a gray Breast Band. Probably a BWP
0052	TERN sp	1	SW		Medium size white below
0104	Pterodroma	1	SW		Probably Sooty
0230	Sp	1	SW		Probably the same Bird
0231	Bird sp.	1	SW		
0231	TERN sp.	1	SW		
0402	BWP	1	SW		
0508	PTERO SP.	1	SW		small
0615					sunset; end nocturnal observations



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
6-8 BALCOMB & HEIDEN
8-10 Fitch & Chandler
10-12 TAY & FITCH & CROSSIN

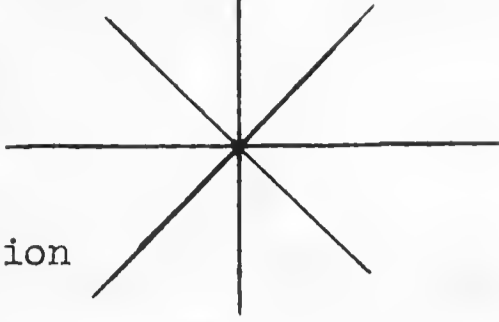
Date 12 NOV. 1966
Pg. # 1

SPECIMEN
or

DIURNAL
GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0615					SUNRISE, begin diurnal observations
0623	WRSP	1	☉		
0637	P. externa	1	NE		possibly cervicalis
0638	P. ext. ext.	1	NE		
0640	"	1	☉		
0710	"	1	☉		
0726	"	1	NE		
FFC 0740	"	20 ± 5	☉	2535	1 coll KCB } No molt ♂ natural
	Blackwing pet	15 ± 5	☉		1 large oil slick ca. 1/2 mile long & 50 yds wide. fishy smell. all these birds are around it.
	WRSP	5	☉		
	Leach's	1	☉	2536	
TF	Sooty/s/bill	18	SW		passing through
TF 0750	"	13	SW		"
C 0755	Leach's	1	☉	2537	1 collected Crossin ♂ LIGHT BODY MOLT
0810	Leach's	1	☉		} BWP chasing Leach's - chase lasted 3 min., then Leach's began chasing BWP
	BWP	1	☉		
0820	BWP	2	S		
FF 0824	BWP	12 ± 2	☉		
	Leach's	1	☉		
0840	GR. FRIG.	1	☉		ad ♀
0841	PTERO. SP	1	☉		
0859	BWP	1	N		
0909	BWP	1	SW		
FF 0940	BWP	9	☉		
1023	BWP	1	☉		
1114	GREAT FRIGATE	2	☉		adult ♂ & immature
1132	Slenderbill	2	S		
1135	Pt. sp.	2	☉		
1138	Gr. Frigate	1	☉		immature.
1143	P/S	3	☉		
1234	JFP	1	☉		
1237	BWP	1	☉		
1337	JFP	1	☉		
1339	JFP	1	☉		
C 1355	RHB	1	☉	2538	following ship - collected Wilson (2538) ♀ MOLT } NO DATA
1414	JFP	1	☉		

SW



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

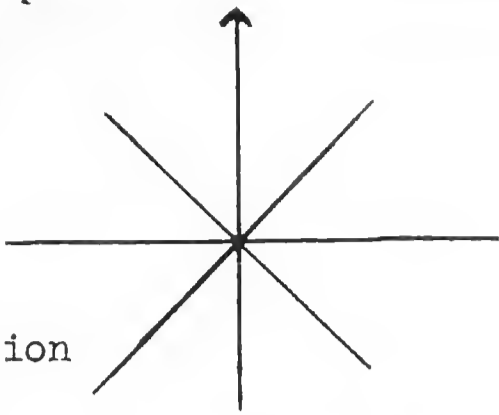
1400-1600 FITCH & BALCOMB
16-55 - CHAN + TUX

Date 12 NOV
Pg.# 2

SPECIMEN (DIURNAL GRID)
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF	1532	Sooty/Slbill	6	S		dark underwing.
TR	1545	"	22	S		"
	1549	BWP	1	☉		went south then
	1550	BWP	1	☉		
	1703	BWP	1	ceeee		
	1710	BIRD	1	ceeee		
	1715	BWP	1	ceeee		
	1720	BWP	1	N		
	1730	JFP	1	N		
	1739					LEAVE S.F. GRID #1
	1743	BWP	1	ce		sitting on H ₂ O
	1747	BWP	1	ce		
	1802					SUNSET CLOSE OBS.

SW



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

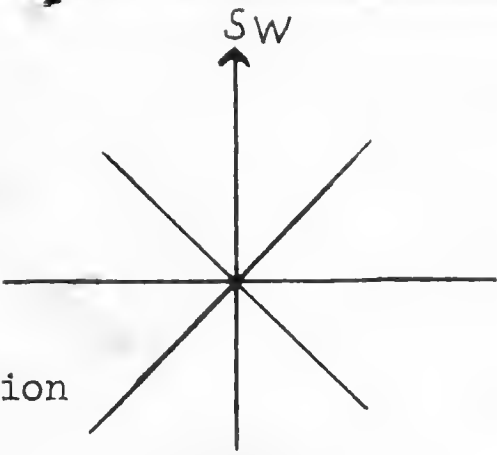
OBSERVERS:

CHAMP HEDDEN SR-0950
8-1000 - HUBER & TUX
10-1200
14-16 HEDDEN & FITCH

Date 13 Nov. 1966
Pg. # 1

SPECIMEN or (DIURNAL) (NON-GRID.)

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0637					SUNRISE BEGIN OBS.
0648	RTTB	1			following ship
0710	JFP	1			
0713	JFP	1	NW		
0725	JFP	1			
0728	JFP	2			
0732	JFP	1			at edge of rain
0740	JFP	1			
0810	Pt. species	1	NE		probably W.W.P. - (black top) (light undersides) - no underwing dark border - black above, but mottled possibly "M" shaped marking (about the size of B.W.P.)
0816	B.W.P.	1	NE		
0833	Pt. species	1	NE		probably W.W.P. again (same field markings)
0853	J.F.P.	1			
0900	B.W.P.	1	NE		
0920	Wedgetail	1			light phase
0937	J.F.P.	1	NE		
0942	B.W.P.	1			
1010	J.F.P.	1	S		
1022	B.W.P.	1	NE		
1023	B.W.P.	1	NE		
1030	B.W.P.	1	N		
1100	B.W.P.	1	NE		slightly lower than wedgetail
1110	Pale-foot Shearwater	1			large - all dark, light bill - slow fly with mott on Primaries, 1 no under wing color
1112	B.W.P.	2			
1145	sooty Tern	2	NE		ad's., direct, unhurried flight.
1200	BWP	1	NE		
SF 1215	SOOTY TERN	5			
	SHEAR/PET	6 ± 1			
1220	BWP	1			
1222	JFP	1			
1228	WRSP	1			
1245					SKIFF IN
C 1302	BWP	1		2539	coll by skiff. RSC.
C 1320	BWP	2		2543	1 coll RSC from skiff
	JFP	1			
	GOLDEN PLOV.	1			
C 1417	BWP	1		2542	coll. R.S.C from skiff
1430	WRSP	1	N		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

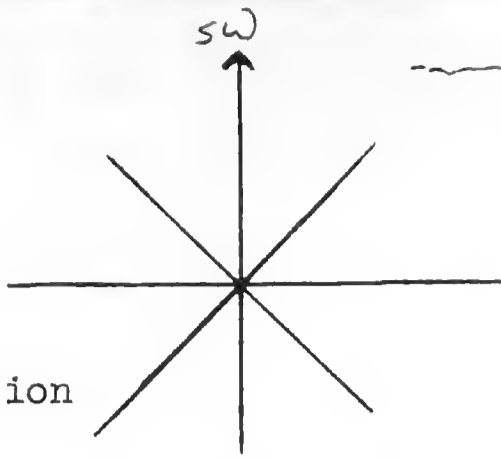
14-16 HEIDEN + FITCH

Date 13 NOV. 1966

Pg. # 2

SPECIMEN
or
DIURNAL
(NON-GRID)

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
C 1432	BWP	1		2541	coll. BY R. CROSSIN from skiff
1442	JAEGER SP.	1	SW		dark phase, small, presumably long-tailed.
C 1448 1451	SOOTY TERN	1		2541	BANDED IMMATURE; coll. BY R. CROSSIN from skiff
C 1456	SOOTY TERN	1			imm. ; coll. BY R. CROSSIN from skiff
1457	GOLDEN PLO.	1	SW		
1515	BWP	1			coll. BY R. CROSSIN
1515	JFP	1			coll. BY R. CROSSIN
1515	BWP	1			seen from skiff
1515	JFP	1			seen from skiff
C 1515	JFP	1		2540	coll. by R. Crossin from skiff
1550	WRSP	1			sitting on H ₂ O
1602	NODDY SP.	1			sitting on football on H ₂ O
1625	st				Skiff in
1655	BWP	1	NW		
1819					Sunset - need observation



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

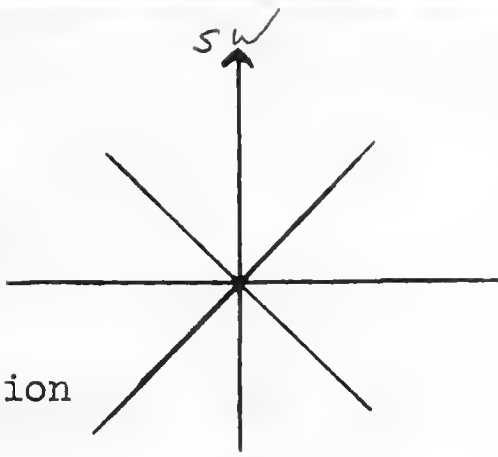
SR - 0800 Huber & Crossin
0800-1000 TUXSON + THOMPSON
10-12 - Balcomb & Huber
12-14 - Heider & Tux
14-16 CHAN + THOMPSON

Date 14 November 1966
Pg. # 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0646					Sunrise - begin Diurnal observations
0712	Bulwer's ?	1	NE		sighting maybe questionable, not seen well.
0715	Black-wing P.	1	NE		Very extensive black on leading trailing wing edges. immature, flying high, ca. 100ft.
0718	Sooty Tern	1	NE		
0738	BWP	1	NE		
0747	BWP	1	SE		
0840	BWP	1	⊙		
C 0840	SHARP-TAILED Pterodromas ? Sanderling	1	⊙	2545	around ship - Sanderling collected 2545 <u>Erolia</u> SHARP-TAIL
0857	W.W.P.	1	NE		
0917	BWP	1	N		
0918	BWP	1	NE		
0940	Wedgetail	1			sitting on H ₂ O, dark phase
1037	BWP	1	⊙		
1055	BWP.	1	⊙		
1105					light rain squall lasting 2 min
1107	BWP	1	⊙		at edge of squall
1117	BWP	1	NE		flight slightly directional
1122	Bird	1	⊙		dark, flapping like tern
C 1130					
1140	BWP	1	⊙	2546	coll. KCB. rainsquall for ten min 2546
1201	Wedgetail	1	N		light ph.
1218	J.F.P.	1	NE		
1228					SKIFF OUT FROM SHIP INTO WATER.
1300	RTTB	1	⊙		sitting on water
1301	BWP.	1	NE		
1315	BWP.	1	NE		
1331	BWP	2	⊙		
CC 1415	Bulwer's Storm Petrel	2	⊙	2547	Bulwer's Balcomb, shot from skiff
				2548	?
1456	Wedgetail	1	⊙		light phase
1530	BWP	2	⊙		ca 75 STENELLA ROSEVENTRIS 1 coll. KCB
1535	Pterodromas sp.	1	⊙		small species
1537	P.TER. SP.	1	⊙		small.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

14-16 CHAN & THOMPSON

16-Sunset Fitch + Tuxson

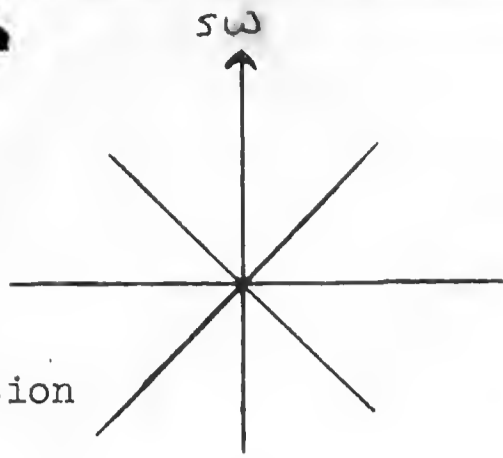
Date 14 Nov. 1966

Pg.# 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

1542	PTEROSP	2	SW		small
1546	BWP	1	ccc		fast erratic flight
1605					skiff in.
1632					rainfall
1637					
1720	BWP	2	ccc		narrow white rump w/ dividing darkish center
	LEACH'S SP	1	ccc		
1724	PTERO. SP.	1	ccc		small
1730	BWP	1	ccc		
1732	BWP	1	⊙		
1740	Ptero. sp.	1	N		small, distant
1747	BWP	1	⊙		
1754	BWP	1	⊙		
1804	BULWERS	1	ccc		on border of two water masses
1806	PTEROSP	1	ccc		over large slick area
1814	LEACH'S SP	1	SE		narrow w/ dividing line
1835					Sunset



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

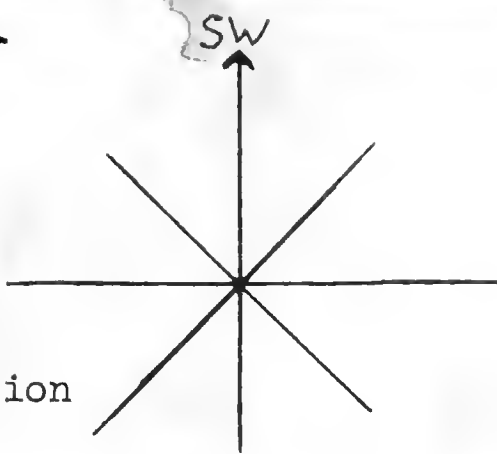
OBSERVERS:

SR-0800 Fitch & Huber
8-10. Tox - Heider

Date 15 Nov. 1966
Pg.# 1

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0655					Sunrise - begin diurnal observations.
0705	pale foot shear-	1	SW		not completely sure
0706	shearwater	2	☉		meind looked like palefoot's with white breast with white tapering off to rear but most pronounced on breast.
0710	Sooty Tern	1	N		adult
0712	Wedgetail	4	☉		dark phase
0713	Sooty Tern	3	N		immature
0719	WTS	1	☉		Dark phase
0722	WTS	1	☉		Dark phase
0725					skiff put out with Crossin
0734	BWP	1	☉		seen by skiff
C 0737	Wedgetail	1		2550	collected by Crossin in skiff - dark phase
C 0747	Wedgetail	1		2551	collected by Crossin in skiff - dark phase Wedgetail
0748	Turtle	1			seen by First Mate - green and white, shell diameter approx. 1 1/2 ft.
0755	White-winged Petrel	1	S		
0756	White-tailed Tropicbird	1			sitting on H ₂ O
C 0806	Sooty Tern	3		2549	all immatures flying - reported by skiff - 1 collected by R.C.
0808	Sooty Tern	3	NE		All believed to be adults
C 0809	Brown Booby	1		2552	Collected from bow (Huber) - adult
0810	Common Noddy	1	S		
0822					skiff in with Crossin, back out with Huber
C 0824	RFB	1		2558	collected from skiff (Huber)
C 0825	Leach St. Pet.	1		2555	collected from skiff (Huber)
C 0834	Sooty Tern	2		2553	collected from skiff (Huber)
C 0835	C. Noddy	1		2557	collected from skiff (Huber) adult (1 collected, 1 seen)
C 0839	Bulwer Petrel	1		2556	" " " "
0842	BWP	1	NE		
C 0845	Sooty Tern	1		2554	collected from skiff (Huber)
0903	BWP	1	SE		
0850	Tahitian Phoenix Pet.	1	NE		
C 0930	Bulwers pet	1	☉	2563	collected from skiff (Huber)
0940	P. externa	1			seen by skiff
0945	BWP	1	NW		
C 1005	WWP	1		2561	collected by Huber in skiff.
1035	wedgetail	1	N		dark ph.
1056	"	1	N		dark ph.
1047	COMMON NODDY	1	W		squall
1020					end of squall!
1035					squall
1047					end of squall
1014					



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E
NON-GRID DIURNAL

OBSERVERS:

10-12 TUX + HEIDEN

12-14 Fitch + Thompson

Date 15 Nov. 1966

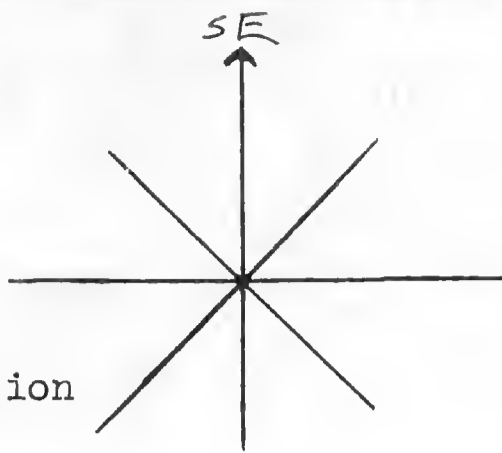
Pg. # 2

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1056	WEDGETAIL <small>Wedgetail white WTTB</small>	1	SW		DARK PH. (AT EDGES OF SQUALL)
C 1115	BWP	1		2560	dark phase collected by L. HUBER from skiff
1120	Fairy Tern Tern Species	1			feeding. fish jumping
1121	WEDGETAIL	1			white, probably Fairy Tern
1133	BWP	1			light
C 1136	WEDGETAIL	1		2566	light ph. collected by L. HUBER from skiff
C 1145	BULLWER'S PET.	1		2564	collected from skiff by L. Huber
C 1153	KERMADEC PET.	1		2559	light phase; collected by L. Huber from skiff
CC TF 1204	Sooty Tern	6	SE	2567, 2571	2 collected from skiff by L. Huber, all 6 were adults
1245	WTTB	1			
C 1300	Bulwer's Pet.	1		2582	1 collected by R. Chandler from skiff
C 1307	Wedgetail	1		2580	1 " " " " light phase
1315	Wedgetail	1	SE		dark phase
CC C c. 1056	Sooty Tern	3		subad 2568, 69, 70	} 1 subadult, 2 adults collected from skiff (Huber)
C	Leach's	1		2565	
C c. 1125	WWP	1		2562	collected from skiff (Huber)
1342	Pterodroma	1			Small - possibly BWP
1359	Pterodroma	2	E		Small - probably TSWPs
CC C Prior to 1410	Bulwer Pet	2		2579, 2583	} collected from skiff (Chandler)
C	BWP WWP	1		2573	
C 1410	WTTB	1		2572	adult + feathered out - collected from skiff (Chandler)
C 1415	BWP WWP	1		2575	collected from skiff (Chandler)
1424	Pterodr. sp	1	N		Possibly had black cap -
1435	BWP	1			
C 1445	Leach's	1		2584	collected from skiff (Chandler)
1515	Shearwater sp.	1	SW		possibly Wedgetail
1515	Sooty Tern	2	SW		adult
1519	Wedgetail	1	N		dark phase
1520	Sooty Tern	2	NE		adults
1500 to 1530	Slenderbill sh	1			} seen from skiff
	Wedgetail sh	2			
CC C	Sooty Tern	2		2578, 2581	adult - collected by Chandler from skiff
C	Pomarine Jaeger	1		2574	imm - collected by Chandler from skiff
C 1543	RTTB	1		2577	subad - collected from skiff by Chandler



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

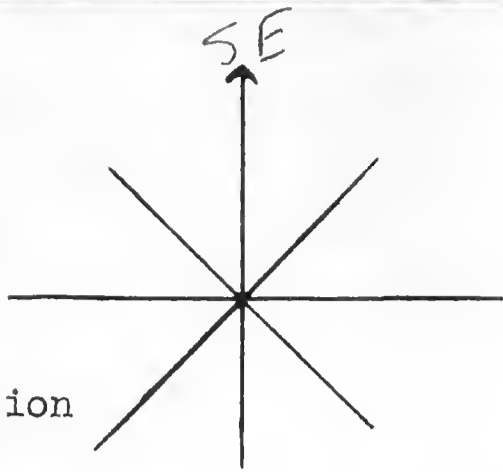
1600-55 Heiden + Crossin

Date 15 Nov. 1966

Pg. # 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1600					skiff brought aboard.
1608	s/s b	2	SE		far out.
1614	wedgetail	1	SE		light phase
1617	Frigate sp.	1	○		way out.
FF 1630	sooty Tern	30 [±]			3 imm, rest ad.
	Frigate sp.	1			
	Wedgetail	15			8 dark phase, 7 light.
	small Pterodroma sp.	5			either Black-wing or white wings. Tuna jumping..
	Taeger sp.	2			both light phase. Terns mostly up high with frigate, one jaeger up high chasing terns.
					Frigate quickly separated from terns + Blackwings? also separated from wedgetails when we began chasing.
1700	BWP	1	⊙		
1708	WWP	1	SE		seen well, very dark head, clean cut inverted W on back, dusky chest, underwings almost all dark.
1720	PTERO. SP.	1	⊙		= P.L. brevipes. rsc.
1735	whitering	1	S		distant
1742	"	1	⊙		
1815	wedgetail	1	SE		dark phase.
1835	Herald's Pet Herald's Pet	1	NW		light forehead, distinct, yet not solid chest band, scattered white under the wings, mostly toward outer primaries, does not show concentrated white wing patches like Kermadec. RSC -
1838	wedgetail	1	SE		dark phase
1846					sunset - stop diurnal observations.
C 1430	WWP	1	ae	2576	1 col. from skiff, Elander



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN
or

nocturnal

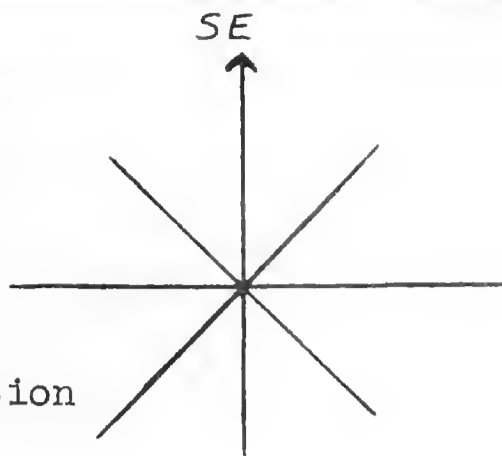
OBSERVERS:

~~18-2000~~ Huber
2100-2400 Balcomb
0000-0300 - Timp
03-06 CHAN
06-08 HEIDEN + BALCOMB

Date 15-16
Nov 1966
Pg.# 1

TIME SPECIES # DIR. BAND NO. REMARKS

1846					sunset begin nocturnal watch
2035	Tern sp	1	SE		possibly sooty
2144	Bird.	1	SE		very white underneath, flying low to water, following ship pterodroma - I think
2204					just crossed a foam streak in the water
2241	Sooty tern	1	⊙		Ad. - call only
2242	"	1	-		ad flying high
2257	"	1	-		Ad.
2300	"	3	⊙		Ad.
2325	"	1			"
2342	"	1	o		subadult
2355	Bird	1	SE		white underneath possibly sooty tern flying about five feet over water at edge of light
2435	Bird	1	NW		probably Sooty Tern.
2445	Shear/Pet	1	SE		white below - flying low over water.
0115	Tropic BIRD sp.	1	⊙		circled around boom, then flew away.
0305	SOOTY TERN	1	⊙		
0626	"	2	⊙		Ad.
0640	sooty/Sbr	2	SW		dark underwings
0647	BWP	1	SE		
0654	sooty/S/6ill	1	SW		
0655					Sunrise - cease nocturnal watch.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN DIURNAL
or

OBSERVERS:

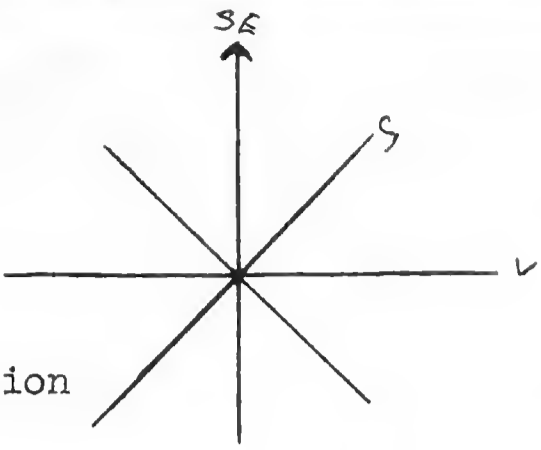
06-08 HEIDEN + BALCOMB

08-10 Fitch + Chandler

Date 16 Nov. 1966

Pg. # 1

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0655					SUNRISE; BEGIN DIURNAL OBSERVATIONS
	0700					SKIFF PUT OUT (w/R. CROSSIN)
	0705	SOOTY/SB	1	SW		dark UNDERWING
	0706	PTERODROMA sp.	1	SW		SMALL
	0707	SOOTY/SB	2	SW		dark underwing
	0714	"	1	SW		"
FF	0717	SOOTY TERN	9			Ad. } feeding
		FAIRY TERN	1			} all dark phase
		WEDGETAIL	6			
		BWP	1			
C	0731	WEDGETAIL	1		2585	dark phase; collected by R. Crossin from skiff
	0735	WTTB	1	☉		following ship
	0740	White-w PTA	1			dark cap
	0750	SOOTY/SB	1	SW		
	0751	"	1	SW		
	0751	WEDGETAIL	1	N		light phase
	0753	SOOTY/SB	1	SW		
SF	0758	WEDGETAIL	1			} searching
		WRSP	3			
		PTERODROMA sp.	1			
SF	0807	Sooty S/bill	2	SW		
		wedgetail	3	☉		lt phase
		sooty tern	1	☉		Ad.
		Sm. pter	3	☉		1 prob black-wing, 1 prob. dark white-wing.
C	0730	WTS	1		2586	} dark phase } collected from skiff (Crossin)
C	to 0800	WWP (brevipes)	1		2587	
		SKUA	1			
	0810					skiff back aboard
	0820	SHEAR/PET	1	☉		
	0837	SOOTY TERN	2	W		ads.
	0842	Shear/pet	1	N		white underwings - black borders, underbody white
	0845	WWP	1	E		light ph.
	0846	WTTB	1	W		
	0847	WRSP	1	☉		
	0848	WEDGETAIL	1	N		dk ph.
	0851	WWP	1	W		
TF	0852	SLENDERBILLS.	5	S		flushed from 420
	0858	PTERO.SP	3	W		small
	0902	WTTB	1	☉		
TF	0912	Sooty/Slenderbill	6	SW		
	0918	"	1	S		
TF	0924	SLENDERBILL	22	SW		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

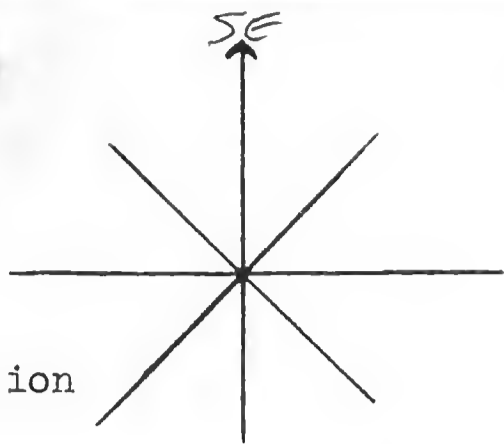
OBSERVERS:

CHANEY FITCH 08-100⁺
10-1200 - Cassin + Turt
1200 + #00 Huber + Thompson

Date 16 Nov. 1960
Pg. # 2

SPECIMEN
or
DIURNAL

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0928	WEDGETAIL	1	W		dk ph.
0930	WNP	1	W		
TF 1015	S/SL	9	S		traveling
1016	Sooty Tern	1	W		
1024	Pterodroma sp.	1	⊙		small
1024	W.W.P.	1	NW		black cap.
1025	Wedgetail	1	S		dark phase
1027	S/SL	1	S		
1035	B.W.P.	1	SE		
1101	B.W.P.	1	⊙		
1101	WEDGETAIL	1	⊙		
1103	SLENDERBILL	2	S		dark underwing
1104	RAIN SQUALL BEGINS				
1131	RAIN SQUALL ENDS				
1131	Bulwer's	1	S		
1131	B.W.P.	1	S		
1134	PI/Lehmann	1	N		
1135	Pterodroma sp.	1	SE		
1145	S/SL	2	S		
1145	W.W.P.	1	W		
1147	Pterodroma sp.	1	NW		W.W.P. or B.W.P.
1148	B.W.P.	1	W		light cap.
TF 1230	Wedgetail	1	W		dark
	S/SL	4			Traveling
1253	Pterodroma sp.	1	NE		probably WWP
1254	Kermadec Petrel	1	NW		a head's depending on a opinion of observers
1305	Bulwer's Petrel	1	S		
SF 1325	WNP	1	⊙		
	Wedgetail	2	⊙		dark phase } searching flock.
	Sooty tern	5	⊙		Ad
	Pterodroma sp.	1	⊙		small possibly BWP or WWP
1328	WNP	1	N		
1329	Wedgetail	1	W		dark phase



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

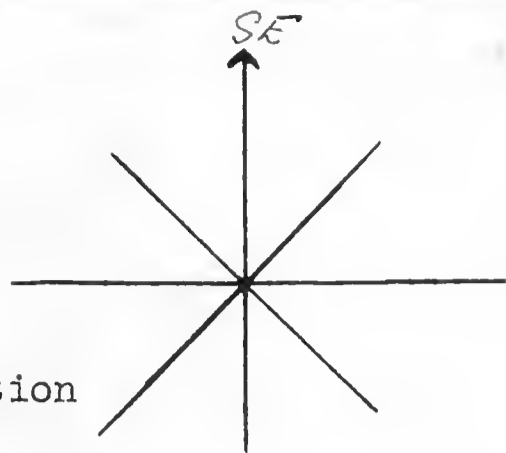
OBSERVERS:
1200-1400 Huber + Thompson
1400-1600 Balcomb + Fitch

Date 16 November 1966
Pg.# 3

Ship
Direction

SPECIMEN
or
DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS	
FF 1353	Fairy Tern	16	⊙		Fish jumping - small - 12"	
	WRSP	1	⊙			
	BWP?	1	⊙			Small type
	Redfooted Boobies	2	⊙			Sub Ad
	Wedgetail	4	⊙			dark phase
	Longtailed Scaup	1	⊙			Chasing a sooty TERN, light phase
	Sooty TERN	1	⊙			Imm
		45±5	⊙		Adults	
1400	Wedgetail	1	⊙		dark phase	
1401	WRSP	1	⊙			
1402	"	1	⊙		leache's acc. Huber - at 1404 this petrel was noted to be touching down on the water several times in front of the bow. He had a little blue fish or squid (12") in his beak.	
1402	BWP	1	⊙			
1406	WRSP	1	⊙			
SF 1417	Sooty tern	11	⊙		1 subadult	
	wedgetail	1	⊙			
1417	Sooty/sbill	2	SW			
1417	WWP	1	NE			
1421	WRSP	1	⊙		acc. touching water	
1425	"	1	⊙			
1425	Sm. Ptero.	1	⊙		BW or WW Petrel? sat on water 30sec. - feeding?	
1425	Sooty tern	2	⊙		Ad	
1429	WWP	1	NW			
1503	Small Ptero.	1	NW		BWP?	
1506	Small Ptero.	2	⊙			
1508	WRSP	1	⊙			
TF 1510	Sooty/Slenderbills	7	SW			
1520	sooty sbill	4	SW			
1520	Sooty tern	4	⊙		Ad. Swirling	
FF	wedgetail	3	⊙		" color phase not determinable	
	sm Pterodroma	2	⊙		"	
1527	JFP	1	⊙			
TF 1527	Sooty tern	15	SE		at least 6 adults occasionally swooping low to water. average speed about 4 knots into wind (12 knot ±)	
1532	wedgetail	1	⊙		dk phase	
TF 1532	Sooty tern	6	SE		at least 4 adults	
1545	Bird	1	SE		wedgetail size, not wedgetail. brown dorsally, white belly, lumbering flight. could not see underwing.	
1550	wedgetail	1	⊙		dark phase	



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E


OBSERVERS:

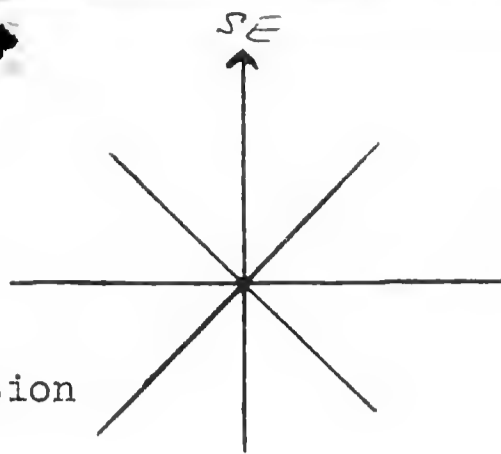
16-55 - Chan & Tux

SPECIMEN DIURNAL - 1893
or

Date 16 Nov 1966
Pg.# 4

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1611	Sooty Tern	1	NW	_____	adult.
1627	Wedgetail	1	⊙	_____	dark phase
1635	B.W.P.	1	NW	_____	gray cap
1655					
1701	Leach's	1	⊙	_____	good look at
1708	BWP	1	NW	_____	white rump.
1715	Bulwer's	1	ce	_____	
1720	WRSP	1	ce	_____	
FF 1725	SOOTY TERN	18	ce	_____	1 imm, rest ad
	Pterod sp.	1	ce	_____	small
1727	Slenderbill	2	SE	_____	
1730	"	1	SW	_____	
1815	Bulwer's	1	⊙	_____	(Wedgetail (dk phase) & S/Sl.) / WWP Diver?
1843					SUNSET CLOSE OBS.

porpoise sp. 4(±1)
approx 4-5' in length -
dark gray above - pointy
rostrum (→) and caudal
fin flat 
seemed to be - light gray below
not white just a lighter shade
of gray.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

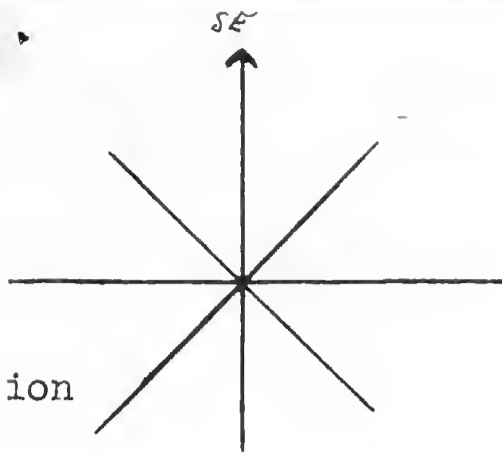
OBSERVERS:

8-10 - Tux & Huber.
11-12 Crossin + Thompson
12-1462 SHAWNSALCO

Date 17 Nov. 1966
Pg. # 2

SPECIMEN DIURNAL
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0935	Wedgetail	1	⊙	—	dark phase.
	0935	B.W.P.	1	N	—	
	0944	LEACHE'S	2	⊙	—	
	0947	Wedge Tail	1	N	—	dark phase
SF	0951	Sooty Tern	7	⊙	—	adults
	1019	Wedgetail	2	⊙	—	dark phase
	1035	WRSP	1	⊙	—	
	1100	RTTB	1	⊙	—	following along with ships, ad. no apparent molt.
	1103	Slenderbills	4	SW	—	dark underwings
	1104	wedgetails	2	N	—	dark phase
	1110	wedgetail	2	SW	—	dark phase
	1115	Slenderbills	4	SW	—	dark underwings
	1123	"	2	SW	—	" "
	1123	wedgetail	1	SW	—	dark phase
	1126	wedgetail	1	SW	—	" "
	1133	wedgetail	1	SW	—	" "
	1135	Sooty Slenderbills	2	SW	—	dark underwings
TF	1140	sooty tern wedgetail	10 1			age not discernable. sooties strung out loosely, most up height wedgetail on 1420. dark phase.
	1143	Leach's SP	2	all	—	thin white V rump patches with separating dark area.
	1147	BWP	1	SE	—	light crown, dark leading & trailing underwing edges.
	1148	PI/fulmar	1	S	—	
	1148	S/SB	2	SW	—	far out.
	1159	WRSP	1	⊙	—	Wide white patch - no separation - forked Tail
TF	1205	SlenderBills	15 ± 1	SW	—	Dark underwings - traveling
	1214	Frigate	1	⊙	—	? lesser
	1220	WRSP	1	F	—	
	1230	SHEAR PET	1	SW	—	S/SB?
SF	1238	Sooty terns	5	⊙	—	4 Adult, 1 imm
	1243	" "	3	SE	—	ad
	1244	WEDGE TAIL	1	NW	—	dark ph.
PF	1253	SOOTY TERN	3	all	—	ad
		WEDGE TAIL	6 ± 1	all	—	dark ph.
	1300	BIRD	2	W	—	over porpoise distant
	1302					
	1308	S/SB	1	SW	—	40 ± 10 Porpii SOME SPINNING
	1310	WRSP	1	all	—	



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

12-1460 CHAN & BALCOMB
14-16 HEIDEN + FITCH
1600-SS Huber + THOMPSON

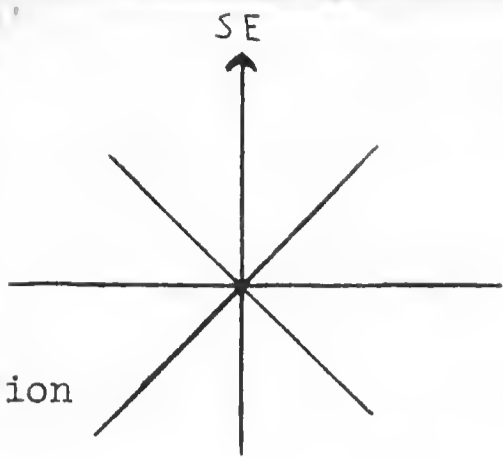
Date 17 Nov. 1966
Pg.# 3

SPECIMEN
or

Ship
Direction

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1311	WEDGETAIL	1	SW		dk ph.
TF	1314	SOOTY/SB	9	SW		too far for underwing.
	1320	WEDGETAIL	4	W		all dk. ph.
	1330	SOOTY/SB	3	SW		dusky underwing.
	1345	PTERO. SP.	1	S		WWP type back BWP type underwings head light?
	1348	SLENDERBILL	3	SW		
FF	1358	SOOTY TERN	30±5	ca		no imm noted
		PTEROSP	1	ca		small
	1403	SOOTY TERN	1			ad toward flock of 1358
	1404	S/SB	1	SW		
TF	1405	S/SB	6	SW		
TF	1406	Slenderbill	13	SW		
	1408	PTERODROMA SP.	1			very distant
	1410	WEDGETAIL	1			DARK PH.
	1416	SOOTY/SB	1	W		light underwing
	1420	"	3	SW		dark underwing
	1426	BWP	1	ca		
	1428	BWP	1	ca		
	1435	WRSP	1			sitting on H ₂ O
	1439	RTTB	1	ca		Following ship tail short and pink, bill pink.
	1449	Wedgetail	1	W		dark phase
	1457	Sooty/Sb.	1	SW		distant
	1509	Ptero. species	1	ca		large to medium, head dark, underwings w/ black fringes and black tip, underbody light, wings longer and thinner than BWP - back light gray - possibly WWP
	1513	BWP	1	ca		
	1535	RTTB	1	ca		
	1540	PHOENIX IS. PET.	1	N		Following ship
	1545	WWP	1			Tahitian Petrel or Phoenix Island
	1552	SOOTY/SB	1	ca		
	1615	Bulwer's pet	1	SW		dark underwing
				ca		lowly on water with wings open and biting at surface sometimes closing wings and begin floating normally, sometimes (possibly) sticking head underwater.
	1654	Slenderbill	1	SW		
	1701	BWP	2	ca		light heads
	1712	Wedgetail	1	W		D. Phase
	1717	L. Frig.	1	ca		♀ ad
	1746	BWP	1	W		
	1750	Pterodroma sp.	1	W		to distant for species ID
	1751	Pterodroma	2	W		to " " " " - small species
1837	1752	BWP	1	W		very distant
	1803	PTERO. SP.	1	ca		
	1820	WWP	1	ca		

SUNSET. END OF DIURNAL OBSERVATION



OBSERVERS:
18-21 HEIDEN

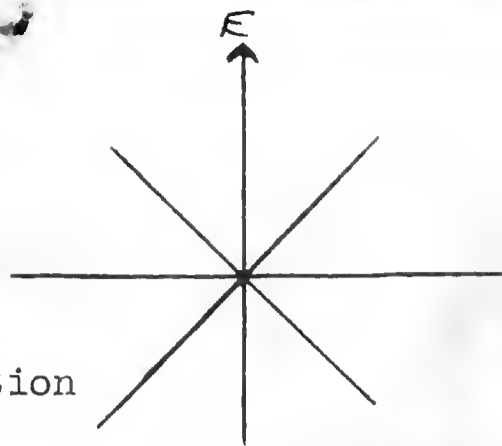
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date ¹⁸ 17 Nov. 1966
Pg. # 1

SPECIMEN NOCTURNAL
or

TIME SPECIES # DIR. BAND NO. REMARKS

1837					SUNSET; BEGIN NOCTURNAL OBSERVATIONS
1840	SOOTY/SEB	1	SW		dark underwing
1848	"	1	SW		
1856	Wedgetail	1	SW		dark pl
1905	"	1	SW		"
1936	PTERO. SP.	1	SW		"
2000	BIRD	1			high, above ship
2158	Pterod. sp.	1			either BWP or WWP, flying along with ship for
2315	" "	1			over 20 min.
2335	" "	1	clear		prob BWP
0003	sooty shear	1	S		" "
0010	Pterodromas sp	1	S		possibly BWP or WWP
0030	Bird	1	NW		high possibly sooty tern ad
0107	Bird	1	NW		either A WRSP or A Bulwers pet
0120	Sooty tern	1	SE		ad
0415	" "	1	SE		ad.
0425	" "	1	SEA		ad calling
0440	PTEROSP	1	SEA		small
0520	SLENDERBILL	1	SEA		
0522					CLOSE OBS. SHIP IN VICINITY - SEARCHLIGHTS OFF



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

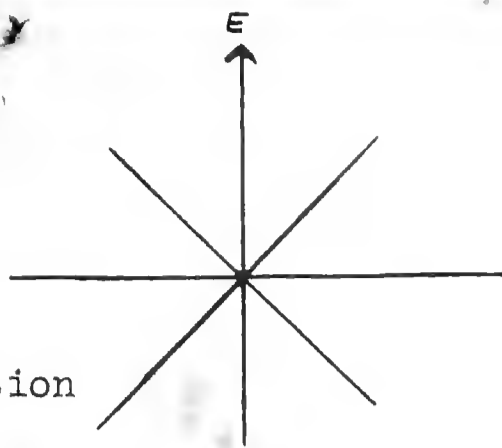
SR - ASC
0800-1800 Tuxson + Thompson

SPECIMEN or DIURNAL GRID

Date 18 Nov. 1966
Pg.# 1

Ship Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0638					SUNRISE BEGIN OBS.
0645	slenderbills	2	SW		dark under wings.
0649	"	3	SW		" "
TF 0652	"	5	SW		" " arcing high (up to 50 ft.) in the strong wind - ca. 25 knots.
0700	wedgetail	1	S		dark phase.
0703	slenderbills	3	S-SW		dark under wings.
0712	"	2	S		" "
0717	"	1	S		" "
0722	"	1	S		" "
0728	"	3	S		" "
0736	RTTB	1	see		following ship.
TF 0740	slenderbills	7	S		looked like light underwings when tilted toward rising sun, but this is misleading.
TF 0745	S/sb	5	S		way out.
0747	sooty Tern	1	SW		ad. low over the H ₂ O in wind.
0750	S/sb	1	SW		light bad.
0751	pterodroma sp.	1	see		way out.
0752	sooty Tern	1	SW		ad.
0758	slenderbill	1	SW		dark underwings.
0800	S/sb	3	SW		way out.
0820	wedgetail	1	NW		P.P.
0841	SFP	1	see		
0855	BWP	1	⊙		
0859	Slenderbill	1	SW		dark underwing lining
0907	Slenderbill	1	SW		" " "
TF 0915	" "	15 fr	SW		" " " Traveling
TF 0916	" "	5	SW		" " " Traveling
0917	wedgetail	1	SW		Dark phase >
0918	SFP	1	⊙		
0920	SFP	1	⊙		
0922	pterodroma	1	⊙		way out
TF 0935	Slenderbill	30 ± 5	SW		dark underwing linings - Traveling
0940	S/sb	2	⊙		Bad light
0950	SFP	1	N		
0951	Slenderbill				seen by Tuxson & Thompson



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

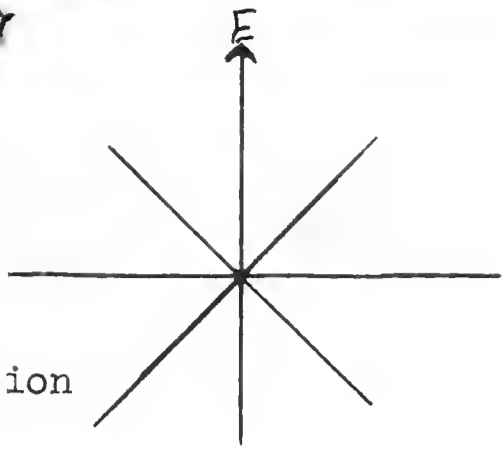
OBSERVERS:

~~10-1200 TUXSON + THOMPSON~~
1000-1200 Babcock & Crossin
12-14 TUXSON + HEIDEN

Date 18 Nov, 1966
Pg.# 2

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0955	Slenderbill	3	SW		dark underwings
TF	0956	"	5	SW		" " Traveling
	1005	P. leucoptera	1	NE		
x	1007	sooty sw	1	S		large, light underwings.
	1008	slenderbill	1	S		dark underwings.
	1015	BWP	1	S		
	1035	S/Sb	1	S		large - but way out.
TF	1045	slenderbills	7	SW		dark underwings
	2046	"	2	SW		
FF	1048	sooty terns	22	⊙		feeding lightly, ad's.
	1052	" "	2	W		ad's.
	1053	S/Sb	1	S		far out.
TF	1109	S/Sb	20±3	S		
	1122	RTTB	1	⊙		following ship
	1122	L. FRIG.	1	⊙		♀
	1123	wedgetail	1	S		dk phase
	1126	S/Sb	1	S		
TF	1128	S/bill	11	S		dk underwing
	1128	BWP	1	⊙		
	1132	"	1	⊙ SE		
	1136	S/Sb	1	S		
	1136	"	1	S		
	1138	S/bill	2	S		dk wing
	1142	"	3	S		"
TF	1146	S/Sb	14	S		
	1152	S/bill	4	S		
	1155	S/Sb	1	S		
	1155	Sooty tern	1	⊙		
	1157	"	6	E		3 ad, 3 imm, no streamers
TF	1210	BFB	1	⊙		Ad.
	1210	BWP	1	N		
	1212	Sooty SW	1	N		light underwings - larger - more flapping flight
SF	1215	SOOTY TERN	5	⊙		3 ad.; 2 imm. Heavier
	1225	S/S/	1	SW		
	1228	TAHITIAN/P.N.S.	1	N		either Tahitian or Pch. Is. (Brownish back)
	1233	BWP	1	⊙		
TF	1237	BWP	1	S		
	1238	SOOTY/Sb	14	S		underwing indiscernible
	1243	"	2	S		
	1245	BFB	1	S		dark underwing
	1246	SOOTY/Sb	1	S		circling steeply; 1 imm.
	1320	BFB	1	E		Imm.



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

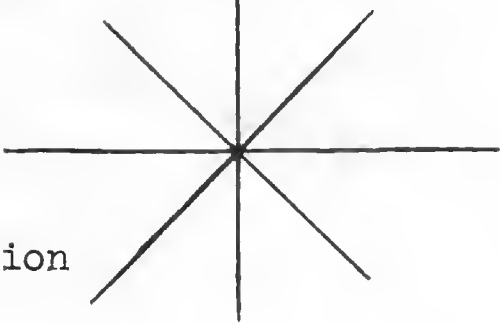
OBSERVERS:
12-14 HEIDEN + TAXSON

Date 18 NOV. 1966
Pg. # 3

SPECIMEN DIURNAL Grid
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF	1335	SOOTY / SB	8	S		dark underwing
	1335	BWP	1	S		
	1344	WRSP	1	⊙		
	1350	SOOTY / SB	1	SW		dark underwing
	1354	RFB	1	E		Imm.
	1410	S/SB	1	S		
TF	1420	"	10	S		
	1421	BFB	1	ca		following, imm
?F	1435	SOOTY TERNS?	10 ± ?	⊙		to far out to tell flock size or activity or positive ID
	1445	BFB	2	ca		ads. following
	1446	PTERO SP.	1	ca		small
	1450	BB	1	ca		ad, following
BF	1454	BFB	3	ca		2 ad 1 imm following, adult w blue point
	1456	PTERO SP.	1	ca		small
	1458	BFB	2	ca		1 ad 1 imm following
TF	1500	Slenderbill	6	S		
	1501	SHEAR PET	1	S		large, white below, showing white in wings above & below
TF	1502	SOOTY TERN	5	E		ads
	1508	Slenderbill	2	S		
	1509	Frig sp.	1	ca		imm
B	1510	BFB	1	ca		imm following banded w streamer
	1510					
	1630			SW E-NE		close obs. for Howland I. landing
	1631	Slenderbill	1			open obs. after Howland I. landing.
	1640	Sooty tern	1	S		Ad
	1640	BFB	1	W		ad
	1640	BFB	1	S		ad
	1641	L Frig	1	E		Ad ↗
	1645	Wedgetail	1	E		DP
	1646	BFB	3	W		ad
	1646	Sooty tern	1	W		Ad
	1647	BFB	2	⊙		imm
	1651	BFB	4	⊙		Ad

E-NE
From Honolulu



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Huber → 1800

Date 18 Nov. 1966

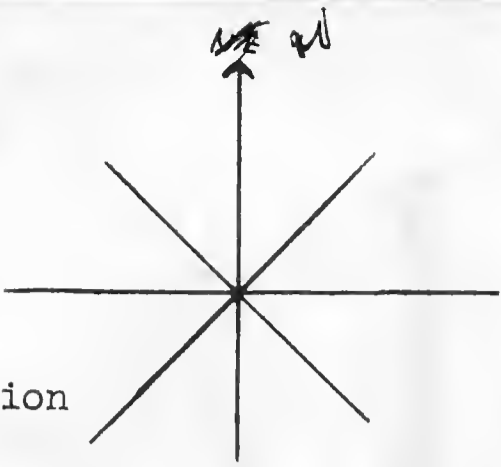
Pg. # 4

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1700	sooty tern	1	S		ad.
1702	" "	3	S		ad.
1705	" "	1	S		ad.
1706	slenderbill	1	S		dark underwing.
FF DS 1720	sooty tern BFB Frigate sp.	150 ± 15 100 ± 10 50 ± 10			feeding tightly, birds strung out for about 2 miles all generally moving to SW. sooties - all ad's. seen, some boobies. 1 BFB Blue Streamed ch.
1725	WWP	1	SW		
1735	wedgetail	1	E		DP.
1735	Ph. booby sp.	1	SW		either BWP or WWP
1740	BFB	2	SW		imm
1741	BFB	1	SW		Ad
1746	slenderbill	2	S		
1750	BFB	1	SW		Ad
1752	BFB	2	SW		Ad
1807	BFB	1	SW		ad.
1812	WEDGETAIL	1	N		dk ph.
1813	Slenderbill	1	S		
1815	BFB	1	SW		ad
1816	BWP	1	ce		
	WEDGETAIL	1	ce		dk ph.
1820	BB	1	SW		ad.
1822	SOOTY TERN	1	SW		ad
TF 1824	Slenderbill	1 5	S		arcing high to 40'
1829	"	1	S		
1830	WWP	1	S		little dark in underwing, darkish head.
1833					SUNSET, CLOSE DIURNAL OBS.



OBSERVERS:

18-2100 CHAN

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN
or

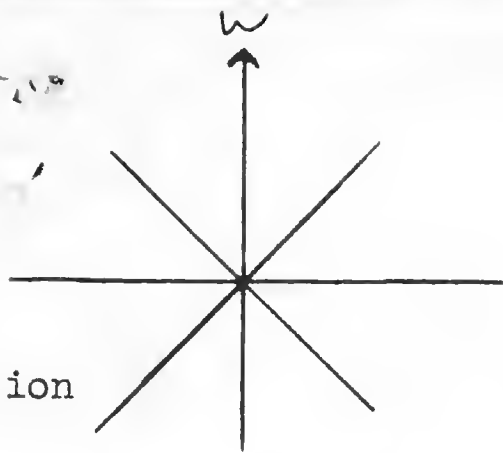
NOCTURNAL
GRID

Date 18-19 Nov 1966
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1833					SUNSET BEGIN IT
1836	Slenderbill	1	S		
1842	WWP	1	S		
1913	RFB	1	W		
2100	SHEAR/PET	1	W		FOLLOWING SHIP AGE phase?
2135	PTERO. SP.	1	S		Slenderbill?
2142	SOOTY TERN	1	S		Ad.
2240	"	1	W		"
2320	"	1	W		"
0130	"	1	S		ad.
0145	"	1	S		ad.
0158	"	1	S		ad.
0225	WRSP	1	W		ad.
0235	sooty Tern	1	S		ad.
0300	Pterodroma	1	SW		possibly BWP or WWP
0400					change course to W
0405	Sooty tern	1	?		Ad
0415	" "	1	?		Ad
0417					
0421	" "	1	E		ad
0440	" "	1	E		imm
0515	" "	1	E		Ad
0517	" "	1	E		Ad
0530	" "	2	E		Ad
0617	RTTB	1	S		
0622	PTERO SP.	1	W		small
0627					SUNRISE CLOSE NOCTURNAL WATCH

BT 7/11/66



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

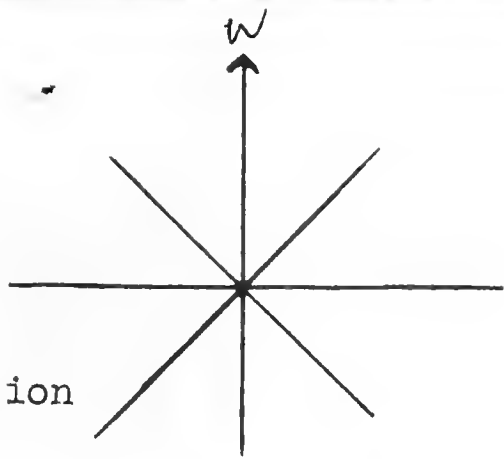
SR-0900 CHAN

Date 19 Nov 1966
Pg.# 1

SPECIMEN
or

DIURNAL
GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0627					SUNRISE, BEGIN OBS.
0637	LESS FRIG	3	ce		all ad ♀♀
0648	BFB	1	ce		following ship ad.
0652	BFB	1	ce		ad.
0703	WEDGETAIL	1	SW		dk ph.
0718	Slenderbill	1	S		
0720	NEWELL'S	1	S		
0724	SOOTY TERN	4	E		ads
0725	" "	4	NE		ads.
0726	RFB	1	NE		int ph.
0728	SOOTY TERN	2	SE		ad.
0730	P.I. PET.	1	ce		small brown-black
0739	SOOTY TERN	3	SE		ads.
TF 0735	SOOTY TERN	6	E		ads
TF 0737	" "	5	W		ads
TF 0742	" "	7	S		ads
0743	BFB	1	SE		ad.
0744	SOOTY TERN	2	SE		ad.
0745	" "	1	N		ad.
0746	PTERO. SP.	2	ce		small brand.
0747	SOOTY TERN	2	SW		ad.
0749	" "	4	SE		ad.
0750	BFB	1	S		ad.
0759	PTERO. SP.	1	S		small
BS 0801	BFB	1	ce		ad w/ blue streamer
0806	BFB	2	S		ad.
SF 0809	SOOTY TERN	55	E		flying high, generally heading E all ads seen.
	FRIG SP.	3	E		1 ad ♀ 2?
0828	BFB	1	ce		ad.
SF 0835	SOOTY TERN	40±10	SE		flying high occasional swoop to H ₂ O not stable impossible to chase
	FRIG SP.	1	SE		
	SHEARWATER	3	SE		
0836	PTERO. SP.	2	ce		small
TF 0837	SLNDERBILL	9	S		
0838	BFB	1	ce		imm
0839	LESS FRIG	2	ce		1 ad ♂ 1 ad ♀
0840	SOOTY TERN	2	ce		ad.
0842	RFB	1	S		imm all dark brown.



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

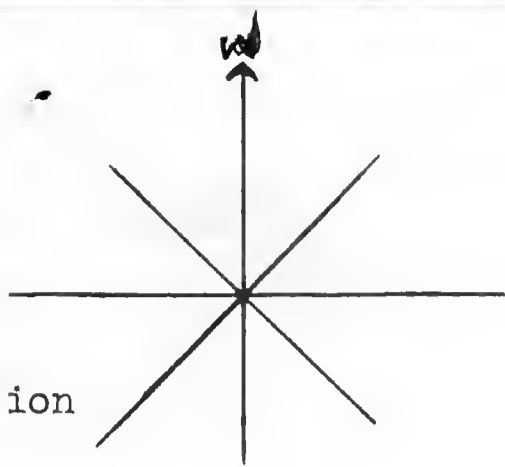
06-0900 CHAN
09-1100 HEIDEN
1100 → Crossin

SPECIMEN
or

DIURNAL GRID

Date 19 Nov 1966
Pg. # 2

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0852	PTERO. SP.	1	N		small type
	0853	BFB	1	W		ad.
	0855	SOOTY SHEAR	1	S		
	0903	BWP	1	S		
	0909	SOOTY TERN	3	W		all ad.; searching
	0916	BFB	1	S		Ad.
(BS)F	0924	BFB	7	W		3 ad. (1 Blue streamer); 4 imm.
TF	0927	BFB	5	W		1 ad; 4 imm.; circling ship
BS	0928	BFB	1	W		Howland Is. sighted
TF	0929	BFB	1	W		imm. circling ship. blue streamer
	0931	SOOTY TERN	4	W		ad.; heading toward Howland Is.
	0934	"	3	E		ad.
(BS)F	0935	BFB	7	W		1 ad.; 6 imm.; circling ship (2 imm. w/ Blue streamer)
	0936					porpoises following ship (1 1/2 dozen)
TF	0939	BWP	1	W		all ad.; circling ship
	0940	BFB	4	W		2 1/2 miles from Howland; end observations
	0940	WRSP	1	W		4 mi from Howland, begin observations
	0940					toward island, all ad's.
	1055			W		imm's. circling ship
TF	1055	sooty tern	27	E		2% imm. one sub ad. noted.
	1056	BFB	4	W		1 imm - blue streamered, 6 imm, 4 ad. } feeding lightly.
FF	1105	sooty tern	150			
BS		BFB	10			
		L. Frig.	9			3 ♂, 6 ♀
		Frig sp.	3			
BS	1110	BFB	6			all imm., 1 blue streamer.
TF	1110	sooty tern	22	N		all ad.
		BFB	1			ad.
FF	1113	sooty tern	30 ± 5			feeding - all ad's seen.
	1115	" "	2	S		ad's.
	1119	L. Frigate	1	W		ad. ♂.
BS	1121	BFB	1	W		imm, blue streamered + banded; circling ship.
	1122	BFB	1	W		ad.
TF	1128	sooty tern	11	W		ad's.
BP	1133	BFB	5	W		4 imm, 1 ad - blue painted on breast.
		BB	1			imm
	1137	Frig. sp.	1	W		imm - way out.
	1141	sooty tern	1	S		ad.
	1143	" "	2	S		ad's.
FF	1148	sooty tern	56 56			many generally southward, feeding
		Frigate sp.	3			lightly. Most terns ad's. can't see all.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

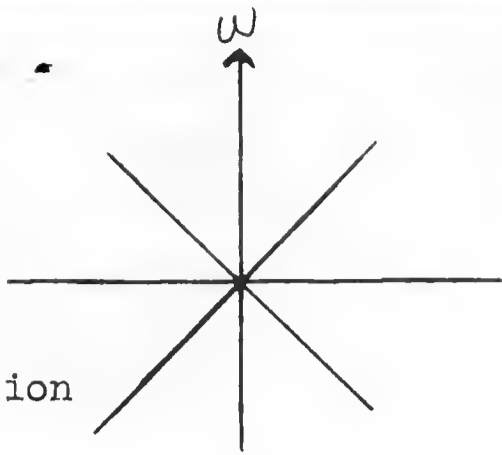
Crossed 1100 → 1500
Huber 1500 - 1800

Date 19 November 1966
Pg. # 3

SPECIMEN
or

Grid
Diurnal

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1152	Wedgetail	1	N		Dark phase
	1200	BFBs	4	⊙		1 Ad - no streamer or pint - banded
TF	1202	Sooty Terns	5	E		3 Immatures } Circle ship once
	1235	BB	1	W		imm. all adult,
	1240	BWP	1	W		imm.
FF	1250	sooty terns	100 ± 5	S		all ad seen
		Frig. sp.	2			ad.
		lesser Frig	2			3 imm, 1 ad.
		BFB	1			imm.
		BB	1			dark phase.
	1307	RTTB	2			ad, courting.
	1310	sooty tern	1	E		ad.
	1325	WRSP	1	N		prob. banded, but not seen well.
	1330	sooty tern	2	S		ad's.
	1332	slenderbill	1	SW		dark underwings.
	1336	sooty tern	3	E		ad.
	1340	" "	2	S		ad.
	1342	BWP	1	N		
	1350	Pterodroma	1	W		prob. BWP
	1351	BWP	1	NE		
	1358	Frigate sp.	1	S		
	1408	BFB	1	E		ad.
TF	1410	sooty tern	7	E		ads.
	1415	s/sb	1	SW		far out.
TF	1420	s/sb	12	SW		" "
TF	1421	s/sb	5	SW		" "
	1427	wedgetail	1	⊙		dark phase.
	1430	sooty tern	4	E		ad.
TF	1438	sooty tern	50 ± 5	S		
		Frigate sp.	3			
		Pterodroma sp.	1			
	1445	s/sb	1	SW		way out.
	1455	sooty shearwater	2			distinct silver underwing, noticeably larger.
	1500	slenderbills	3	SW		dark underwings.
TF	1501	sooty terns	40 ± 5	E		way out.
	1510	sooty/slender	1	SW		" "
SF	1532	sooty tern	19	E		} Searching flock
		wedgetail	1	⊙		
	1535	sooty tern	3	SE		
	1542	Bulwer's	1	W		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Huber 15-1800
Thompson 1800-2700

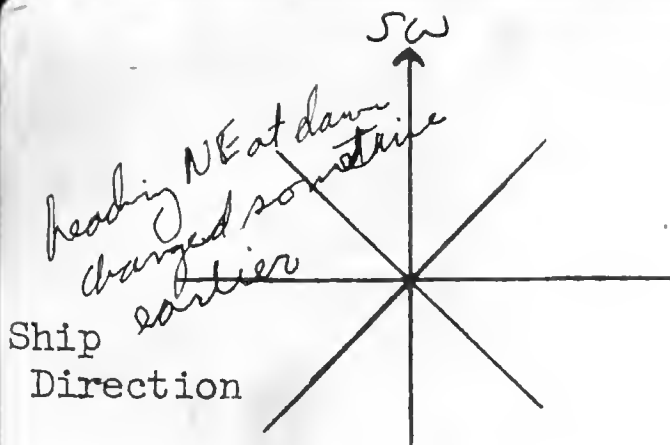
SPECIMEN
or

*Field
Journal*

Date 19 Nov 1966
Pg.# 4

1841

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1650	Sooty/Shearwater	1	SW		
1655	RTTB	1	SW		A2
1640	Storm pet	2	W		
TF 1646	Sooty tern	9	E		8AL line - traveling
1710	Storm pet.	2	S		
1801	Storm pet.	1	N		Wilson's ? Square tail - small white patch not divided
1803	<u>Pterodroma</u>	1	W		Small species
1800 1825	Sp Storm pet.	1	N		more at a smaller-like flight
1841					Sunset, end of diurnal observations



OBSERVERS:
HSS-2100 Thompson

0000-0300

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

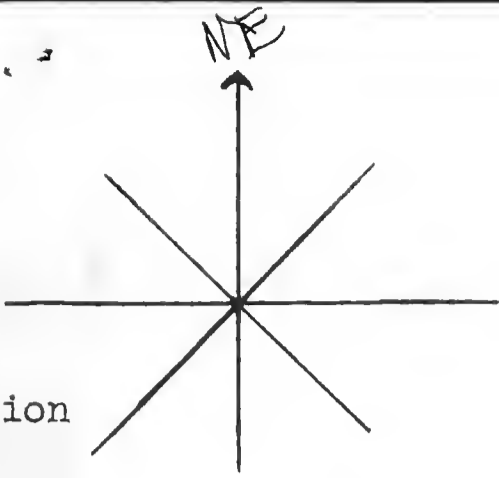
Date 19²⁰ November 1966
Pg.# 1

SPECIMEN
or

Nocturnal
GRID

TIME SPECIES # DIR. BAND NO. REMARKS

1842					open observations
1915	Bird	1	α		white below
1925	Pterodroma	1	E		WWP/BWP
2001	Sooty	1	⊙		ad.
1950	TERN		E		
1955	Sooty TERN	1	E		ad.
2005					
2040	Pterodroma	1	α		Strong Head wind appeared appeared
					WWP/BWP
2135	SOOTY TERN	2	?		ad calling
2235	SHEAR/PET	1	α		
2340	Slender-bill	1	α		ptero. sp. small? - light below.
0030	SOOTY TERN	1			above ship; ad. calling
0127	"	4	⊙		ad.
0310	Shear Pet	1	αα		
0410	wedgetail	1	E		dark phase
0437	sooty tern	1	⊙		ad.
0625	shear/pet	1	NE		wedgetail size but seemed to be a petrel
0628	storm pet sp.	1	SE		
0631					sunrise end nocturnal watch



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

0600-0900 - Huber
0900-1200 Thompson

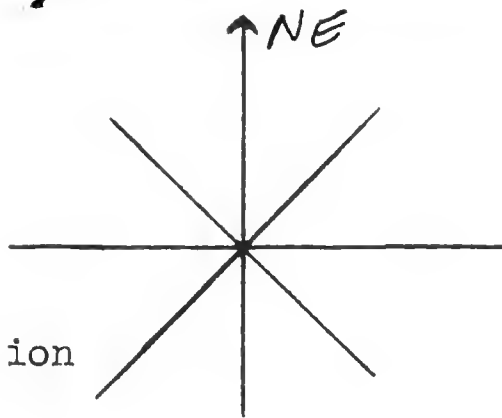
Date 20 Nov, 1966
Pg. # 1

SPECIMEN
OR

*Grid
Animal*

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0631					Sunrise 15' swell 1' waves, pt cloudy skies, about 25mph wind coming from E, 1 partly asleep observer, a bird or two now and there.
0651	Sooty/sld.	1	S		
0735	BWP	1	W		
0738	WWP	1	NE		
0743	Pterodroma sp.	1	SW		BWP or WWP
0745	Slenderbill	1	S		
0754	BWP	1	SW		
0800	BWP	1	SW		
0807	Sooty tern	1	NE		ad
0810	" "	2	SW		ad
0820	shear/pet	1	NE		
0828	Slenderbill	1	S		
0833	"	3	S		
0835	BWP	1	SW		
0838	WRSP	1	NE		
0842	WRSP	1	NE		
0850	WRSP	1	?		
0903	Little shearwater? (P. assimilis)	1	NW		one of the <i>fulvius fulvius</i> group. Slightly larger than a Leach's storm petrel, white below Black above, without the white patch beside above beside the tail as in Newell's, but with a flight like the Newell's - no white collar; (Spotted sandpiper like - flapping on strike wings and short sails) - Not Newell's - size too small, no white patches; not <i>Aukulomis</i> - size too small, different flight - therefore? little
0904	WRSP	1	NW		
0915	Pterodroma	1	SSW		WWP/BWP
1015	BFB	1	S		ad
1030					2 whales? Small fin compared to amount of back shows above water - also head was blunt, Gray below - Brown above - three rose head up out of the water



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

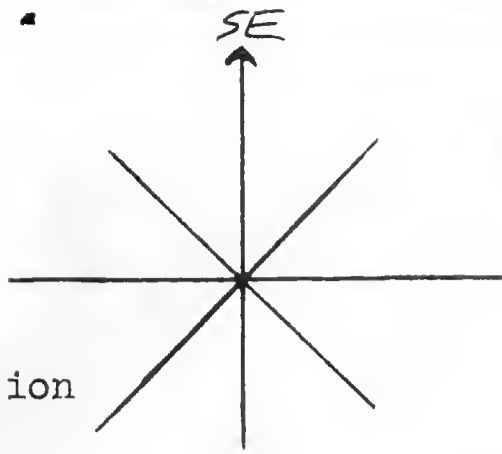
0900-1200 THOMPSON
1200 → CROSSIN
1220 - HEIDEN

Date 20 Nov 1966
Pg.# 2

SPECIMEN
or

GRID
Durnal

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1037	Slender bill	1	S		
	1038	Slender bill	4	S		
	1039	BIS	1			? stage
	1047	Slender bill	2	S		traveling
	1053	lesser frigate	1	NW		ad ♂
TF	1112	Sooty TERNS	5	SE		ads, Traveling
	1117	Sooty TERNS	1	SE		ads
	1132	WWP	1	SW		dark cap
	1145	Phoenix Island	1	☉		sitting H ₂ O, Rich Brown back
	1235	WADGETAIL	1	☉		DARK PH.
	1245					SKIFF PUT OUT
TF	1300	SOOTY/SL	7	S		dark underwing
FF C	1300	FRIGATE SP. WEDGETAIL SOOTY TERNS	22 20 100 ± 5			Dark phase 2596 } feeding 1 ad. coll. by R. CROSSIN from skiff
		BFB	7			
		RFB	40			
	1314	SOOTY/SL	2	S		dark underwing
	1320	"	1	S		"
	1340	"	10	S		"
	1342	"	10	S		"
	1343	PT/T	1	☉		
	1344	SOOTY TERN	1	NE		ad.
	1349	"	2	E		ad.
	1400	SOOTY/SL	2	S		dark underwing
CC	1405	SOOTY TERN	2		2591-92	Ad.; both coll. by R. CROSSIN from skiff
CC	1406	"	9		2593-99	Ad.; 2 coll. by R. CROSSIN from skiff
	1415	SOOTY/SL	2		2589	collected by R. CROSSIN from skiff
	1418	BFB	1			1mm.; circling ship
CC	1421	BFB	1			
CC	1424	SOOTY TERN	3		2595-96	2 coll. by R. CROSSIN from skiff
	1426	FRIGATE SP.	1	☉		very distant
TF	1430	SOOTY TERN	5	E		ad.
CC	1431	"	3		2597-98-99	all ad. coll. by R. CROSSIN from skiff
	1445	SOOTY/SL	1	E		dark underwing
	1446	RTTB	1	☉		
C	1500	SANDERLING	1		2588	1 mile off BAKER. cease observations coll. by R. Crossin from skiff



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

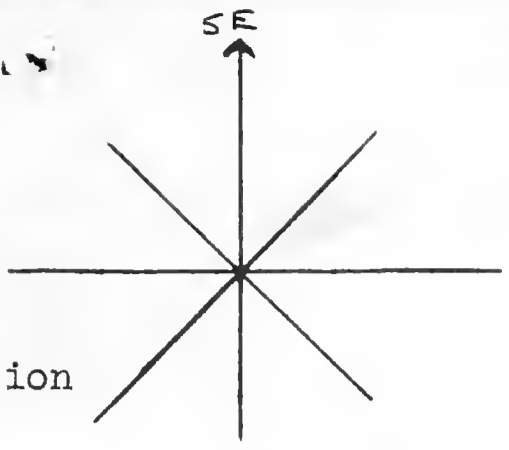
1530 - *C. Green*

Date 20 Nov 66
Pg.# 3

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1540					ca. 3 mi offshore Baker - begin observations.
1543	Slenderbill	1	S		dark underwings
1601	BWP	1	NE		
1610	Slenderbill	1	S		dark underwings.
1620	"	2	S		" "
1632	PI/T	1	SE		
	sooty tern	1	SE		ad.
C FF 1640	Sooty tern	100 ⁷⁵		2600	alled. - 1 st coll. RSC.
	lesser Frig.	20			5 ♂, 4 ♀
	Wedgetail	15			all dark - frigates working over flock.
	RFB	3			ad's
	Newell's	1			
	Slenderbill	4			
	Frig. sp.	10			= 10
	RFB	1			SA.
1720	WRSP	1	NW		
1725	Frig sp	2			
	sooty tern	1			
1735	Sooty tern	1	SW		
1735	Wedgetail	1	SE		d.P.
1739	Sooty/sl.d.	1	SW		
1740	New Zealand Shear.	1	SE		mod. distinct, ^{father} M on dorsal - gray otherwise about, pure white below, slightly larger than wedgetail. def. shearwater.
1744	WRSP	1			
1751	BWP	1	SW		
1753	Slenderbill?	1	SW		
1813	Sooty/sl.b.	1	SW		
FF 1825	Sooty tern	150			scattered. about 10 imm seen
	Wedgetail	8			dark glass
	WRSP	1			
	L. Frig	2			AD ♀
1834					sunset - close diurnal watch



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
SS-2100 HUBER

Date 20-21 Nov. 1966
Pg. # 7

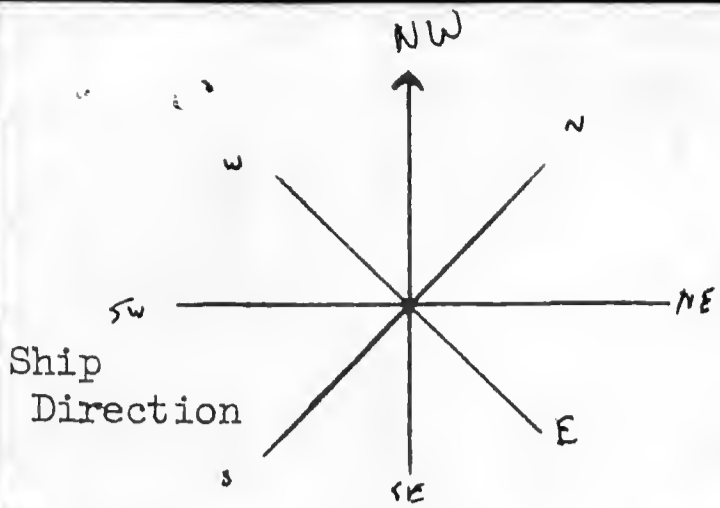
SPECIMEN Nocturnal

Ship Direction

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0634					sunset - begin nocturnal watch.
1834					
1945	Shear/pet	1	SE		
1948	TERN sp	1	NW		
2347	Shear Pet	1	S		white below, small, likely sm. Pterodroma.
2255	sm. Ptero	1	over		
2315	Sooty Tern	1	over		calling.
2317	sm. Ptero	1	over		
2325	Sooty tern	2	N		ad
2345	Shear Pet	1	over		light below
2350	SOOTY TERN	1			
0000	SHEAR/PET	1	N		ad.; calling
0010					
0025					light light rain
0040	STORM PET	1			out of rain
0058					
0120					squall
0121	SHEAR/PET	1			end squall
0135	SOOTY TERN	1	over		ad. } fluttering above ship
0135	WRSP	2	over		
0142	SOOTY TERN	1	over		ad.
0150	"	1			"
0155	"	1			" ; calling
0156	"	1			" ; calling
0200	"	1			" ; calling
0205	"	1			" ; calling
0210	WRSP	1	over		" ; circling ship; calling
0215	SOOTY TERN	1	over		ad. calling
0217	"	1	SE		" "
0219	"	1	SE		" "
0221	"	1	SE		" "
0223	"	1	SE		" "
0225	"	1	SE		" "
0227	"	1	SE		" "
0229	"	1	SE		" "
0231	"	2	SE		" "
0235	"	2	SE		" not calling
0236	"	1	SE		" "
0239	"	1	SE		" "
0240	"	1	over		ad. circling ship; calling
0241	"	1	SE		ad.
0244	"	1	over		" "
0245	"	2	SE		" calling
0248	"	1	SE		" "
0252	"	2	SE		" "
0253	"	1	SE		" silent
0258	"	15 ± 2	SE		" calling

Spending streamly haste,
along my course hope



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

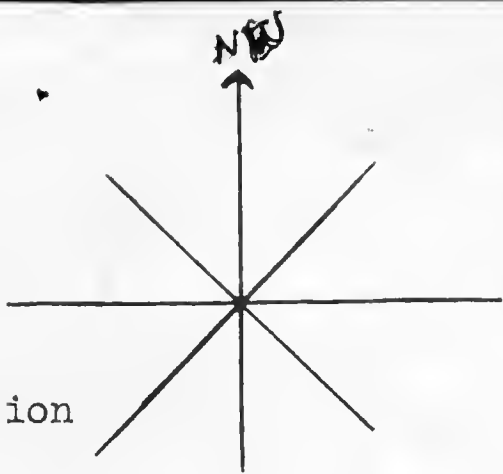
OBSERVERS:
03-06 - Hubert N

Date 20-21 Nov, 1966
Pg.# 2

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0300	Sooty tern	4	SE	Ad	starting here birds lumped into 4s for convenience
0305	" "	4	SE	Ad	
0310	" "	4	SW	3rd imm	
0310	WRSP	1	SE		
0312	Sooty tern	4	NW	3Ad imm	
0316	" "	4	NW	Ad	
0320	" "	4	SE	Ad	
0324	" "	4	SE	Ad	
0330	" "	4	SE	nd	
0332	" "	4	SE	nd	
0336	" "	4	SE	Ad	
0340	" "	4	SE	Ad	
0342	" "	4	SE	Ad	
0346	" "	4	S	Ad	
0350	" "	4	S	3rd imm	
0354	" "	4	SE	Ad	
0357	" "	4	SE	Ad	
0400	" "	4	SE	Ad	
0402	" "	4	SE	Ad	
0404	" "	4	SE	Ad	
0406	" "	4	SE	Ad	
0408	" "	4	S	nd	
0410	" "	4	SE	Ad	
0413	" "	4	SE	Ad	
0416	" "	4	SE	Ad	
0420	" "	4	S	Ad	note during BT most birds seem to be heading SE
0422	" "	4	S	Ad	
0425	" "	4	SE	3rd imm	
0428	" "	4	SE	Ad	
0432	" "	4	S	Ad	
0434	" "	4	S	Ad	
0436	" "	4	SE	Ad	
0440	" "	4	S	Ad	
0443	" "	4	SE	Ad	
0445	" "	4	SE	Ad	
0448	" "	4	S	Ad	
0450	" "	4	SE	Ad	
0452	" "	4	SE	Ad	
0454	" "	4	SE	2nd / subad imm	
0455	RFB	1	S	subad	
0457	Sooty tern	4		Ad	



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

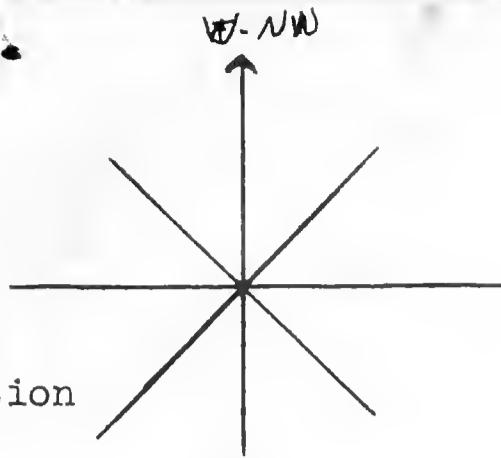
OBSERVERS:

03-06 Huber LP

Date 20-21 Nov. 1966
Pg.# 3

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0459	Sooty tern	4	E		Ad.
0501	Sooty tern	2	SE		Ad
0510	Sooty tern	4	SE		Ad
0514	" "	4	E		Ad
0518	" "	4	SE		Ad
0520	RFB	1			possibly same as previous one, I think I see
TF 0522	Sooty tern	8	SE		it circling the ship once in awhile.
0525	" "	3	SE		Ad traveling flock.
0528	" "	2	SE		Ad
0531	" "	3	SE		Ad
0535	Frog sp	1	SE		imm - still dark but starting to get light in east
0540	sooty tern	1	SE		Ad
0610	BFB	1	CE		subad.
0611	RFB	1	CE		imm.
0615	BFB	1	W		ad.
0620	BFB	2	NE		ads.
0622	BFB	1	NE		ad.
0625	BFB	1	DE		subad. still showing a few dark feathers dorsally
0627					sunrise



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

SPECIMEN
or

Diurnal

OBSERVERS:

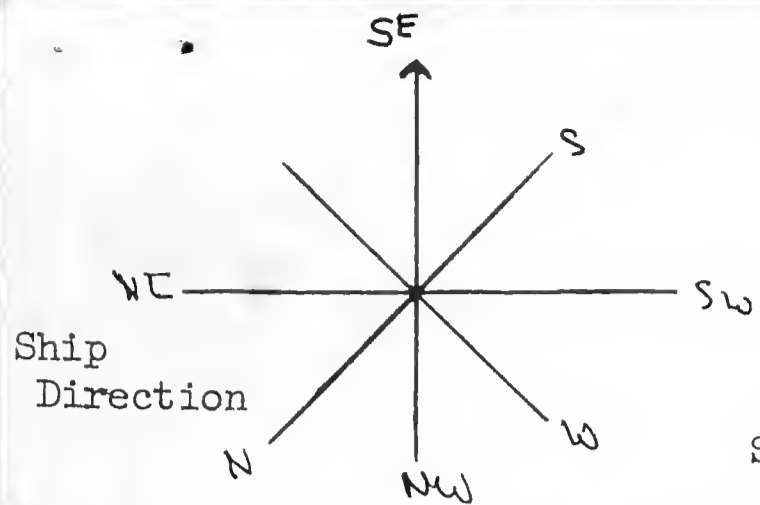
0600 → Crossin

0830 - HEIDEN

Date 21 November 1966

Pg.# 7

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0627					sunrise - begin diurnal watch. Howland well in view
	0635	BFB	3	NW		Imm's.
	0635	Frigate sp.	1	OE		
	0636	BFB	1	OE		ad.
	0637	BFB	2	E		1 ad., 1 Imm.
	0638	BFB	1	E		ad.
BS	0641	BFB	1	E		Imm. w/ blue streamer
TF	0643	BFB	6	E		2 ad, 3 Imm, 1 subad.
	0645	Frigate sp.	4	OE		circling up high - offshore Howland.
	0646	BWP	1	OE		
	0646	Sooty tern	2	E		ad.
TF	0646	BFB	12	OOE		4 ad, 7 Imm, 1 subad.
	0647	BFB	1	E		Imm.
	0648	BFB	2	E		ad.
	0648	sooty tern	1	OE		ad.
	0649	BFB	1	E		ad.
	0650					Howland 1/2 mile - close obs. for pickup.
	0810					Howland 1 mile - open obs. after pickup.
		S for Baker.				
FF	0814	sooty tern	60 [±]			all seen were ads.
BS		BFB	12			3 ad. 9 Imm. 1 Imm blue streamered.
		Frig sp.	4			
		BFB	1			ad.
	0821	WRSP	2	S		
FF	0825	sooty tern	40			for out.
		frig sp.	2			
	0830	BFB	2	S		ad.
	0845					Coast SE
	0845	BFB	2	S		1 ad.; 1 Imm.
	0832	BFB	3			following ship; all Imm.
	0855	BFB	1	S		Imm.
	0855	SOOTY TERN	2	NW		Ads
	0905	BFB	3			following ship; all Imm.
	0912	SOOTY/SB	1	SW		dark underwing
	0915	SOOTY TERN	1	NW		ad.
	0920	BFB	2	S		Ads.
	0924	BFB	2	OO		Imm.; feeding
	0925	SOOTY/SB	1	SW		dark underwing
	0935	LESSER FRIG.	3	S		all ad
BS	0940	BFB	1			Imm.; following ship (blue streamer)
	0945	SOOTY TERN	1	SE		ad.
BS	1000	BFB	1			Imm.; following ship (blue streamer)
	1002	BFB	1			Imm.
	1002	SOOTY TERN	2	SE		Imm.
	1030	WEDGE TAIL	1	NW		2 ads.
				N		dark pl.



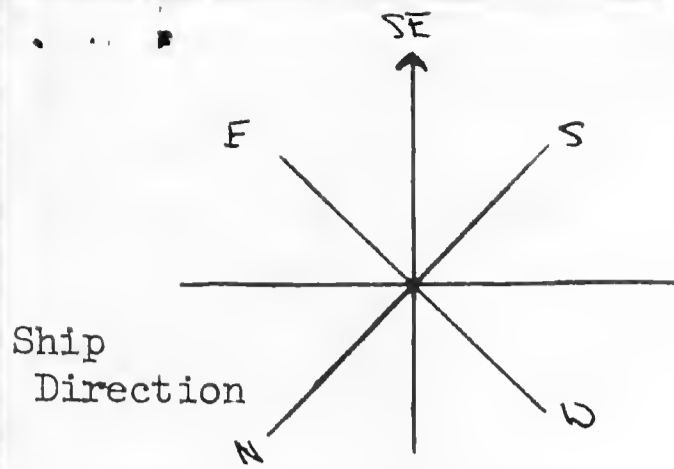
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E
DIURNAL GRID

OBSERVERS:
HEIDEN 0830 -

1400-1600 Fitch + Huber

Date 21 Nov. 1966
Pg. # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1100	SOOTY/SB	1	SW		dark underwing
1103	"	2	SW		" "
1137	COMMON NODDY	1	W		
1140	SOOTY TERN	4	NW		ad.
TF 1149	RUPPY TURNSTONE	6	NE		travelling
1200					1 mile off Baker; last observation
1250					2 miles off Baker begin observations.
1253	BFB	1	S		subad.
1306	BWP	1	S		
1307	Sooty tern	1	S		imm.
1307	Frig. sp.	3	ch		
TK 1315	sooty tern	5	N		ad.
TF 1324	Frig. sp.	5			
1324	sooty tern	1			ad lived at by a frigate.
1330	" "	3			ad.
	Frig. sp.	1			
1332	BWP	1	S		
1335	WEDGETAIL	1	⊙		dark phase
1343	BROWN BOOBY	1	⊙		adult
1345	B. F. B.	1	⊙		immature
FF. 1348	BFB.	1	⊙		adult on water
	Brown B.	1	⊙		adult on water
	BFB.	1	⊙		immature
	Wedgetail	4	⊙		dark phase
1350	B. F. B.	1	NW		adult
1355	B.W.P	1	⊙		
1410	BWP	1	⊙		
1414	BWP	4	⊙		
TF 1414	Sooty tern	23	SE.		
1421	Wedgetail	1	N		dark phase
1424	Leach's Storm Petrel	1	⊙		sitting on H ₂ O, took off and flew South
1426	Sooty Tern	1	S		adult
1427	BFB	1	NE		adult
1428					
1438					
1444	BFB	2	NE		adults
1445	BFB	1	⊙		following ship
1453	Sooty Tern	3	S		adult
1455	BFB	2	SE		adult
1455	BWP	1	W		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

1400-1600 Fitch + Huber
1600-1800 HEIDEN + CHAN
1800-2100 - Tom Smith

Date 21 November 1966
Pg.# 3

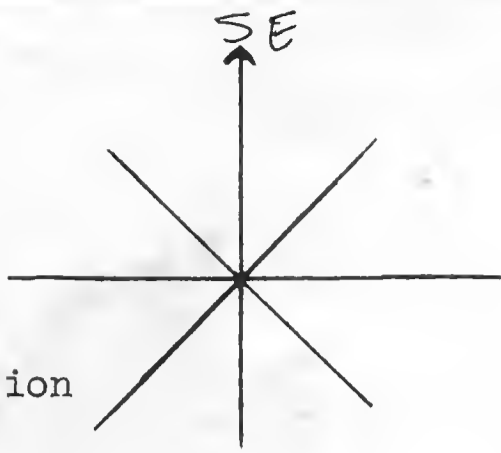
*Pinned
GMP*

JF
TF
FF
JF
TF

TIME SPECIES # DIR. BAND NO. REMARKS

	1500	BFB	1	☉	immature following ship
	1501	Sooty Tern	1	SE	adult
	1502	Sooty/Sl.	2	SW	
	1505	Sooty Tern	2	S	adults
	1510	BFB	1	NW	Ad
	1520	BWP	1	SW	
JF	1537	Sooty tern	6	☉	traveling flock.
TF	1545	Sooty Tern	8	☉	adults
	1550	BWP	1	☉	
	1555	G. Frigate	1	☉	♀
FF	1557	Frigate	8	☉	
		Sooty Tern	39	☉	
	1610	SHEAR/PET	1	SW	
	1615	BWP	2	NW	
JF	1617	SOOTY TERN	19	SE	
	1622	WEDGE TAIL	1	SW	dk ph.
	1630	SOOTY TERN	1	N	
	1635	" "	1	SE	ad
	1640	BWP	1	☉	
	1645	PTERO. SP.	1	☉	very distant
JF	1649	SOOTY TERN	10	SE	ad.
	1655	PTERO. SP.	1	☉	distant
	1700	SHEAR/PET	1	E	
TF	1720	SOOTY TERN	6	E	
	1732	PTERO SP.	1	☉	
	1735	" "	1	☉	
	1752	BWP	1	☉	gray head
	1805	BWP	1	SW	gray head
	1811	Phaethon	1	SW	wur/BWP
	1820	Slender bills	2	SW	dark underwings
	1836				

Just close observations



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SS-2100 Thompson

Date ²² 21 Nov 1966
Pg. # 1

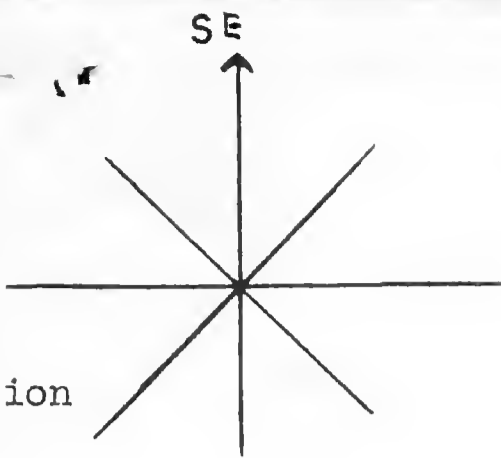
Nocturnal
GRID

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1836					Sunset, open observations
2045	GBT	1			calling
2200	Sooty tern	2	?		Ad. calling -
2230	"	1	SE		" , & seen
2240	"	1	?		"
2250	"	1	?		"
2335	WRSP	1	⊙		
0015	sooty tern	1	NW		followed ship 1 min
0040	" "	2	?		Ad
0120	" "	2	?		Ad
0155	Gray back tern	1	ce		calling only.
0200	Shear Pet	1	S		white below
0215	" "	1	ce		dark, wedge tail size.
0220	G-13 Tern	2	N		passed over, calling
0242	" "	1	S		
0245	" "	2	S		
0255	" "	4	cece		
0330	SOOTY TERN	1	ce		ad calling
0337	GBT	1	ce		
0400					LEAVE SOUTHERN GRID CLOSE OBS.

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s



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

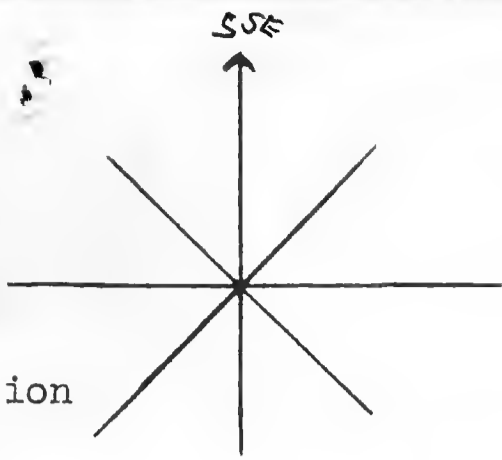
OBSERVERS:
SR-0800 HEIDEN
0800-1000 Fitch + Chandler

SPECIMEN DIURNAL
or

Date 22 Nov. 1966
Pg.# 1

Ship Direction

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0620					SUNRISE; BEGIN DIURNAL OBSERVATIONS
	0650	SOOTY TERN	2	S		ad.
	0651	FAIRY TERN	1	⊙		
TF	0715	SOOTY TERN	5	NW		ad.
	0720	"	3	NW		ad.
	0724	BWP	1	⊙		
	0727	BWP	1	⊙		
	0742	SOOTY TERN	2	N		ad.
	0823	BWP	2	N		
	0827	RTTB	1	⊙		subadult
TF	0845	SOOTY TERN	16 ± 1	E		all adults
		FAIRY TERN	2	E		
	0846	PTERO SP.	1	⊙		small as in wwp
TF	0900	SOOTY TERN	7	E		age not det. adults
	0908	" "	3	E		ad.
	0909	BFB	1	⊙		subad. ? partial dark head, no band.
FF	0915	SOOTY TERN	100 ± 10	⊙		all adults seen
		FRIG. SP.	5			
		PTERO. SP	1			small
		wedgetail	8			dk phase
		FAIRY TERN	1			
FF	0921	SOOTY TERN	40 ± 5			all adults ?
		WEDGETAIL	2			dk ph
		FRIG. SP.	1			
FF	0925	Sooty Tern	8	⊙		adults in pairs, partial courtship flights observed.
	0932	Sooty Tern	5	E		at least 3 adults
	0935	WRSP	2	⊙		
		Leach's St. P.	1	⊙		sitting on H ₂ O, took off when approached by ship
	0940	BWP	1	E		
	0942	Sooty Tern	1	E		ad
	0943	RTTB	2	⊙		ad
	0944	SOOTY TERN	4	SE		Ad.
	0946	Sooty Tern	2	⊙		adult
SF	0947	Sooty Tern	8	E		adult
		FAIRY TERN	1	⊙E		
	0949	Sooty Tern	2	E		adult
		PTERO SP.	1	SE		prob. PIP but light



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

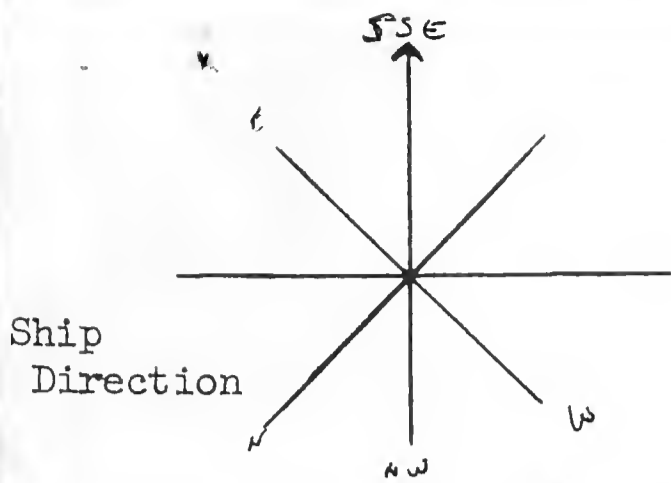
08-1000 FITCH & CHAN
10-12 TUX & CROSSIN

Date 22 Nov. 1966
Pg.# 2

SPECIMEN NON-GRID
OR
DIR. BAND NO. REMARKS DIURNAL

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0					
	1005	Sooty tern	3	NW		Ad
	1005	"	3	NW		"
	1005	"	1	NE		"
TF	1007	"	23	⊙		"
	1010	Pip/Tah.	1	N		
	1015	B.W.P.	1	SE		
	1020	R.T.B.	1	⊙		adult.
PF	1025	Sooty T.	1	⊙		"
	1030	RTTB	2			
		FRIG.	2			
		W.R.S.P.	1			
	1030	B.W.P.	1	⊙		
TF	1036	sooty tern	5	E		ad. terns.
		FRIG. sp.	1			
TF	1040	Sooty tern	5	E		ads.
	1044	R.T.B.	4	⊙		ads - circled the ship.
	1045	SLENDER BIRD	1	S		
	1047	Sooty T.	8	⊙		AD's.
	1048	" "	2	⊙		AD's.
	1049	SOOTY T.	7	⊙		AD'S
	1055	B.W.P.	1	SE		
	1103	Sooty T.	7	⊙		
	1105	Sooty T.	3	⊙		
	1110	Bulwer's	1	SE		
	1112	Sooty T.	5	SE		
	1130	Sooty T.	4	SE		
	1134	B.P.B.	1	NW		adult
	1135	Sooty T.	1	S		
	1137	Sooty T.	1	⊙		
	1139	Sooty T.	6.	N		
	1140	WEDGETAIL	1	⊙		dash phase
PF	1143	FRIGATE	15	⊙		
	1145	Sooty T.	100 ± 10	⊙		
		FRIGATES	3	⊙		circling overhead.
		Wedgetail	4	⊙		dash phase
						porpoise jumping
		Tropic B.	2	⊙		

Porpoise - stenella sp.? some jumping ca. 15 feet into air. a few made 1/4 to full twists in air. ca 30 individuals.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

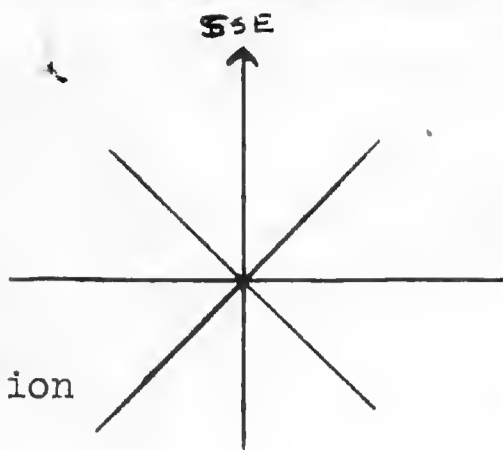
OBSERVERS:

10-12 - Tux & Crossin
1200-1400 Huber + Thompson

Date 22 Nov. 1966
Pg.# 3

SPECIMEN or NON-GRID. DIURNAL

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
F.F.	1150	Frigate sp. Sooty T.	47 300	⊙ ⊙		
	1154	BFB	1			ad
		WRSP	1			
	1155	Sooty TERN	3	E		ads
	1212	Sterna sp.	7	NE		Ad sooty/grayback.
WF	1216	Sooty tern	12	SE		Ad weird flock in a swirl like over ^{an} the island, one pair
	1221	BFD	1	N		seen courting
	1222	Sooty TERN	1	E		ad ad
	1217	RTTB	1	SE		ad
	1229	Sooty TERNS	2	NE		ads
	1235	" "	4	NE		
	1235	" "	2	NE		
	1238	BWP	1	E		gray cap
	1239	TWP	1	E		gray cap
	1240	BB	1	N		immature
TF	1253	Sooty TERNS	9	N		all adults
	1254	Sooty TERNS	2	E		adults
	1255	" "	3	S		adults
	1256	" "	2	SE		adults
WF	1257	Sooty TERNS	18	⊙		Adults - weird flock in a swirl like over an island
	1305	RTTB	1	⊙		
	1306	Sooty TERNS	3	N		circled ship - ad, then sat on the
	1315	Fairy TERN	1	N		ads
	1316	Sooty TERN	2	E		adults
TF	1317	" "	2 9	W		adults, traveling
F	1318	" "	30 ± 5	⊙		adults flock by destination only
	1320	BG Noddy	1	⊙		circled the ship
	1321	Fairy TERN	1	⊙		
FK	1324	Sooty TERNS	50 ± 5	⊙		Adults
		Wedgetail	1			dark phase of feeding
		Fairy TERN	1			
	1325	RFB	1	E		ad - Intermediate
	1326	Audubon's Sh.	1	⊙		on the
	1330	Sooty TERNS	2	E		ads.
	1357	BWP	2	E		gray caps
	1401	BWP	2	SW		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

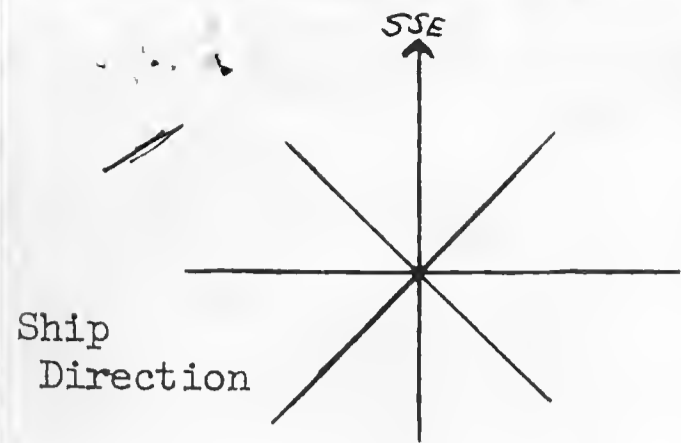
1400-1600 Balcomb & Fit

Date 21 NOVEMBER, 1966
Pg.# 4

SPECIMEN
or

Ship
Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1405	WRSP	2	⊙		ON water, then lifted off
1409	BFB	1	⊙		Ad. circling ship.
1411	Sooty tern	1	⊙		Ad.
1413	"	2	S		"
1420	"	4	S		"
1420	WRSP	1	⊙		
1421	Sooty tern	2	NE		Ad.
1428	"	8	S		"
"	"	5	SE		"
1433	"	4	SE		"
1447	"	4	E		"
1504	BWP	1	⊙		
1509	Sooty Tern	4	SE		adult
1509	Sooty Tern	1	N		adult
1515	Sooty Tern	1	⊙ ←		adult
1519	Sooty Tern	2	SE		adults
TF 1520	Sooty Tern	15	SE		adults
1535	"	1			adults
1535	Ruddy Turnstone	2	⊙		calling
1547	Sooty tern	1	⊙		no streamers - circling ship
1550	Sooty Tern	3	⊙		ad.
1551					Splash! - fish or dolphins?
FF 1558	Shear-pet	1	sw		all black - Xmas Island shearwater
FF 1600	Sooty Tern	16	⊙		adults
	Frigate Sp.	1	⊙		immature
	Fairy Tern	1	⊙		} flock following large fish - possibly tuna
1601	WRSP	1	SSE		
1602	Slenderbills	7	S		
1603	Shear/PET	1	S		med - large, possibly PIP
TF 1605	SOOTY TERN	9	S		
1618	BWP	1	S		
1620	SOOTY TERN	2	E		
1622	WEDGEBILL	1	E		dk pl.
1624	SOOTY TERN	1	E		ad
1625	BIRD SP.	1	NW		distant
1628	SOOTY TERN	2	SE		ad.
1630	WRSP	1	al		
1631	WRSP	3	ce		
1632	SOOTY TERN	1	Sj		
SF 1633	TERN SP.	8±2	dec		in sun



OBSERVERS:

16-55 CHAN ETUX

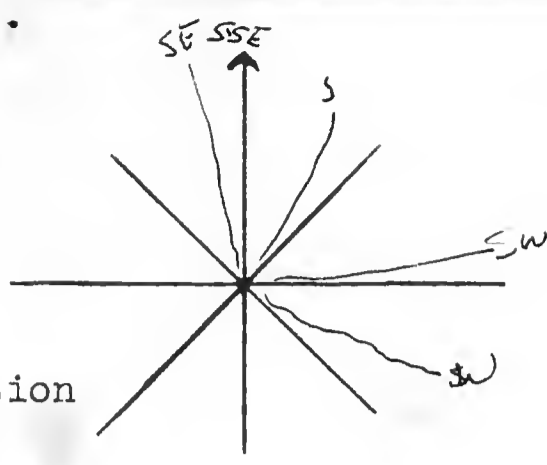
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 22 Nov. 1966
Pg.# 5

SPECIMEN or DIURNAL Non-Grid

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1636	WRS P	1	02L		
1643	LEACH'S	1	02		
1644	SOOTY TERN.	1	SW		
1650	SOOTY/SL.	1	E		adult
1651	PTERODROMA sp.)	1	02		
1655	SOOTY TERN	1	W		ad.
1659	" "	1	02L		ad.
1705	WRS P	1	02L		
1706	SHEAR PET	1	E		med large PIP? distant
1710	SOOTY TERN	2	SE		ad.
1735	" "	1	E		ad.
TF 1745	" "	5	E		ad.
1812	SOOTY T.	4	E		ad.
TF 1813	" "	5	E		ad.
1824	B.W. P.	1	02		
1824	SLENDERBILL	1	SW		
1825	SOOTY TERN	1	E		ad.
1831	SLENDER BILL	1	SW		
TF 1832	SOOTY TERN	7	E		
1836					SUNSET CEASE IT

G



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

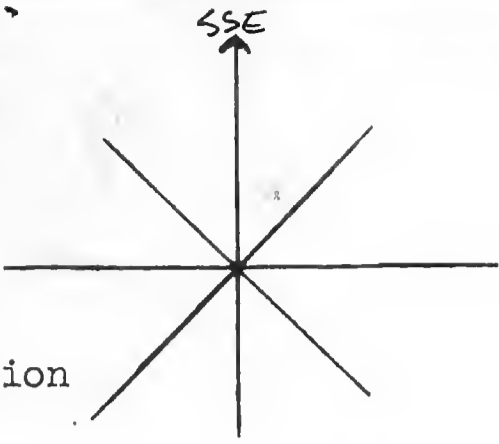
OBSERVERS:
SR-0800 CHAMP HERRON
8-10 HUBER & TUX
1000-1200 THOMPSON

Ship
Direction

SPECIMEN Diurnal
OR Non-Grid.

Date 23 Nov. 1966
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0612					SUNRISE, BEGIN THEM
0616	BWP	1	☉		
0618	SOOTY TERN	1	NE		ad.
0620	Slenderbill	1	SW		
0621	RTTB	2	☉		ad. 1 calling
0637	SOOTY TERN	1	E		ad.
0718	PIERO SP.	1	S		
0728	WTTB	1	SE		
0812	SOOTY T.	1	NW		adult
0820	TAHITI PETREL	1	SE		P/T definitely brown above
0835	BWP	1	☉		
0836	BWP	1	☉		
0836	Shear/pet	1			
F.F. 0845	SOOTY TERN	60 ± 5	SE	☉	possibly slenderbill type
	Common Noddy	1	☉		ad.
	WEDGETAIL	1	☉		DARK PHASE } FEEDING
	B.W.P.	1	☉		
FF. 0910	SOOTY T.	110 ± 2	☉		
	WEDGETAIL	1	☉		DARK PHASE
FF. 0911	SOOTY T.	30	☉		BEHIND THE "0910" FLOCK - FURTHER OUT.
FF. 0915	SOOTY T.	36	☉		
	FAIRY T.	3	☉		dark phase } FEEDING.
	WEDGETAIL	1	☉		
	Pterodroma sp.	1	☉		B.W.P. type
FF 0958	sooty tern	80	☉		feeding flock
0959	RTTB	1	☉		flaw into the flagpole on bow - Ad
SF 1005	SOOTY TERNS	10	☉		all adult, searching Flock
1025	BWP	2	☉		
1029	SOOTY TERNS	2	☉		adults
1101	SOOTY TERN	1	☉		adults
1240					SKIFF IN H ₂ O w/ HUBER
1255					rain commenceth.
1300	Sooty tern	1	N		Ad.
1307	Brown booby	1	☉		" circling ship. rain ceaseth
1310	Bulwer's	1	☉		
1323	Sooty tern	11	☉		Ad
	WWP	1	☉		very dark phase
1329	"	1	☉		
1330	porcupine	fish 1	☉		coll by skiff
C 1338	Bulwer's pet	1	☉	2606	"



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

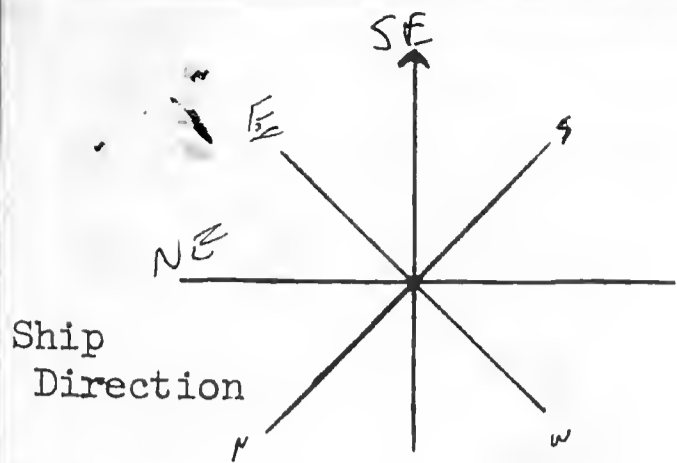
CHAN & BALCOMB 1200-1400
14-16 HEIDEN + FITCH
16-18 THOMPSON + Huber

Date 23 NOVEMBER, 1966
Pg. # 2

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
TF	1344	Sooty tern	35±5	⊙		too far for age det. } searching + light feeding
		Shear pet	3±1	⊙		} moving easterly
		FAIRY TERN	2	⊙		
TF CC	1345	Sooty tern	15	⊙	2601 2602	Ad. 2 coll by skiff.
		Fairy tern	3	⊙		
C	1350	BWP	1	⊙	2609	coll from skiff Huber
	1351	SOOTY TERN	3	F		ad.
C	1405	L.T. JAEGER	2		2607	} collected from skiff by L. HUBER
CC	1405	SOOTY TERN	2		2603 2604	
CSF	1410	SOOTY TERN	15	W	2605	all adults, except 2 imm. — 1 ad coll skiff
SF	1425	"	6	⊙		Ads.; calling
	1503	BWP	2	⊙		skiff
	1530	BWP	1	W		
	1535	Sooty Tern	1	F		adult
	1601	WRSP	1	⊙		
C	1605	BZ	1	⊙	2608	sitting on H ₂ O
	1608	Sooty/Slanderbill	1	SW		skiff
	1609	Hear W's	1	⊙		Type of Pterodroma - skiff
	1610	WWP	1	⊙		skiff
TF	1700	Sooty tern	6	⊙		travelling flock
	1735	Sooty Skiff	1	SW		light underwing
	1800	Sooty/Slanderbill	1	SW		dark underwing
	1817	Sooty TERN	2	⊙		adults
	1835					sunset close watch

1630 Skiff in



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

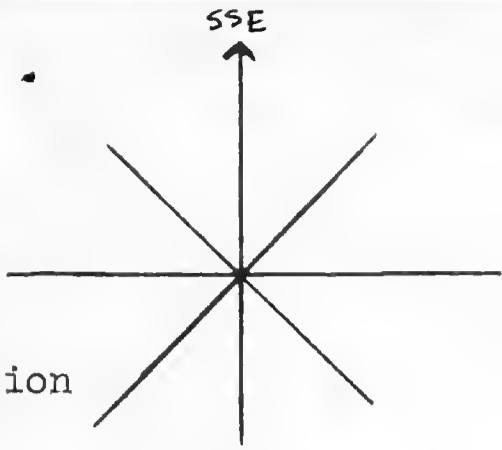
~~Star~~ Sunrise - 0500 Crossin At Sea

Date 24 Nov, 1966
Pg.# 1

SPECIMEN
or

Non bird

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0557					Sunrise begins watch
0610	Slenderbill	2	SW	—	cloudy a few rain showers here and there
0617	Sooty tern	2	NW	—	Ad
0620	Fairy tern	1	W	—	
0636	sooty tern	1	S	—	Ad
0636	Wedgetail	1	⊙	—	D.P.
0644	Shear/pet	1	?	—	all dark
0651	C. Noddy	2	SW	—	
0704	Slenderbill	1	S	—	
0704	Shear/pet	1	?	—	Dark
0707	Wedgetail	1	E	—	Dark P.
0714	Sooty tern	1	NW	—	Ad
0714	Fairy tern	1			} traveling together.
0715	Pterodroma	1	SE	—	BWP or WWP
0724	Wedgetail	1	SE	—	Dark
0742	Fairy tern	3	W	—	
0747	" "	1			
0752	Shear pet	1	⊙	—	wedgetail size
0755	Pterodroma sp	1	SE	—	BWP or WWP
0803	WWP/BWP	1	NE	—	Heard's Petrel
0840	Slenderbill	1	SW	—	Heard's Petrel, by Crossin
0851	WWP/BWP	1	S	—	
0858	WWP/BWP	1	NE	—	
0935	BWP	1	SW	—	gray head
0938	BWP	1	SW	—	gray head
0954	Slenderbill / Sooty Shear	1	S	—	to distant
1015	Sooty/s/bill	1	S	—	
1025	C. Noddy	1	⊙	—	standing on fishball
1038	Bulwer's pet	1	⊙	—	
1045	C noddy	2	SE	—	
1050	WRSP	1	⊙	—	
1050	Wedgetail	1	SW	—	dk phase } traveling SW together
1051	BWP	2	SW	—	
1052	"	1	SW	—	
1058	Sooty/s/bill	1	⊙	—	
1058	Pip/Tah	1	⊙	—	Sat on water - likely Tahitian RSC heavier bird.
1102	WTTB	1	⊙	—	was sitting on water
1107	Sooty/S/bill	1	SW	—	heavy body, slight light underwing
1136	Bulwer's pet	1	⊙	—	
1141	WWP	1	⊙	—	



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

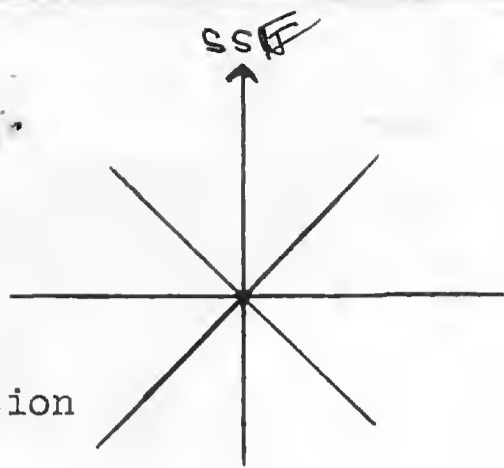
OBSERVERS:

1000-1200 CROSSIN & BALCOMB
1200-1400 HEIDEN + TAYLOR
1400-1600 THOMPSON + CHAN
1600-Sunset Fitch

SPECIMEN DIURNAL NON GRID
or

Date 24 NOVEMBER, 1966
Pg.# 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1152	BWP	1	SW		
1155	Sooty S/bill	1	SW		
1200	BWP	1	S		
FF 1209	SOOTY TERN	15	SW		} feeding dark ph. small
	FAIRY TERN	2	SW		
	WEDGETAIL	6	SW		
	PTERO. SP.	1	SW		
1220	BWP	1	S		
1247	PTERO. SP.	1	SW		large; very distinct
1255	TAHITIAN PH. S.	1	SE		brown back
1256	BWP	1	S		
1326	WTTB	1	S		
1330	WEDGETAIL	1	SE		dark ph.
1428	Slenderbill/Sooty	2	SE		
1430	Slenderbill/Sooty	1	SW		
1456	Slenderbill/Sooty	3	SW		
1505	Slenderbill/Sooty	1	SW		
FF 1510	FAIRY TERNS	15	SW		} feeding - medium sized fish jumps
	Common Noddy	4	SW		
1520	BWP	1	SW		gray cap
1527	S/sb	1	SE		
1524	S/sb	2	SW		
1530	S/sb	1	SW		
1531	S/sb	2	SW		
1533	S/sb	2	SW		
1535	S/sb	1	SE		
1541	Sooty shearwater	1	SW		light underwing lining - heavier, wider wing bones
1550	S/sb	1	SE		
1549	S/sb	2	SW		
1601	BWP	1	SW		gray cap
1635					within 3 miles of Swains
1830					resume watch - 2 miles from Swains
					Sunset



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Sunrise - 0700 Fitch
0700 - 0800 Hub & Lu
0800 - 1000 Crossin & Belcomb
10-12 HEIDEN + TUXSON

Ship
Direction

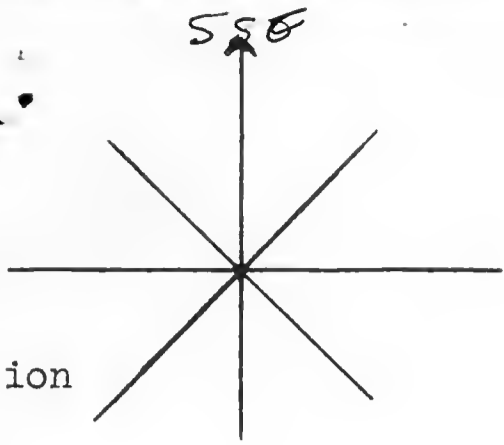
Date 25 November 1966
Pg. # 1

SPECIMEN

or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0546					Sunrise
0548	Tropicbird sp.	1	E		
0601	Wedgetail	1	S		dark phase
0605	Tropicbird sp.	1	N		
0610	Sooty/Sl.	1	S		
0637	WNP	1	S		
0644	Tropicbird sp.	1	S		
0725	x				RAIN shower
0736	Fairy tern	1	NW		
0749	BWP	1	W		
0755	Shear/pet	1	SE		
0810	C. Noddy	1	W		
0842	BWP	1	S		
0859	Fairy Tern	1	SW		
0903	" "	2	N		
0909	BWP	1	SW		
0915	Fairy Tern	1	SW		
0931	" "	1	SW		
0931	BWP	1	S		
0935	Slenderbills	2	S-SW		
0937	Fairy Tern	1	N		
0943	" "	1	N		
0946	BWP	1	S		
0950	"	1	SW		
0952	"	1	W		
0956	Fairy Tern	2	N		
1006	SOOTY/SLB	2	SW		dark underwing
1006	RFB	1	S		int. or dark pl.
1010	BWP	1	SW		
1015					large squall to SE
1017	SOOTY/SLB	1	SW		dark underwing
1027					squall
1040					out of squall
1040					dark night
1055	BWP	1	S		
1115	SOOTY/SLB	1	SW		
1135	FAIRY TERN	1	E		
1220	FAIRY TERN	1	NE		
1240	BWP	1	SW		gray cap
1245	RFB	1	SE		white phase - Ad



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

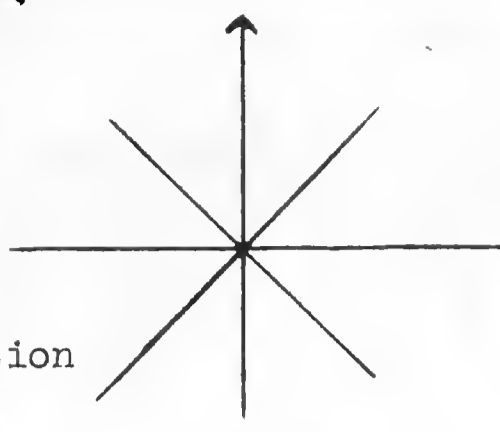
OBSERVERS:

1200-1410 Thompson

Date 25 Nov. 1966
Pg.# 2

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1246	Fairy TERN	2	NW		
1248	S/Sb	1	W		
1249	Fairy TERN	1	NE		
SF 1256	Common Noddy	6	E		Searching flock
	Fairy TERN	2			
1257	BB	2	SSE		ad.
1300	Fairy TERN	1	SNE		
1301	Common Noddy	2	SE		
SF 1304	Common Noddy	8	NE		Searching flock
	Fairy TERN	2			
1309	WWP	1	SW		black cov
1310	Fairy TERN	2	G		feeding
1311	Common Noddy	3	E		
1312	Haw. Noddy	1	NW		
1315	BWP	1			
FF 1316	Fairy TERN	5	E		
	Common Noddy	3			
	Pterodroma	1			WWP/BWP
1317	RKB	1	NE		ad - dark phase
SF 1318	Common Noddy	6	NE		
	Fairy Terns	3			Searching flock
1320	Fairy TERN	1	NE		
1324	Pterodroma	1	G		WWP/BWP
1325	Fairy TERN	1	NE		
1330	RKB	2	N		AD - Intermediate phase
1331	Fairy TERN	1	NE		feeding
1334	Fairy TERN	1	NE		
1341	Fairy TERN	3	NE		
SF 1342	Common Noddy	7	NE		Searching flock
1345					within 3 miles of land - end of observations



Ship Direction

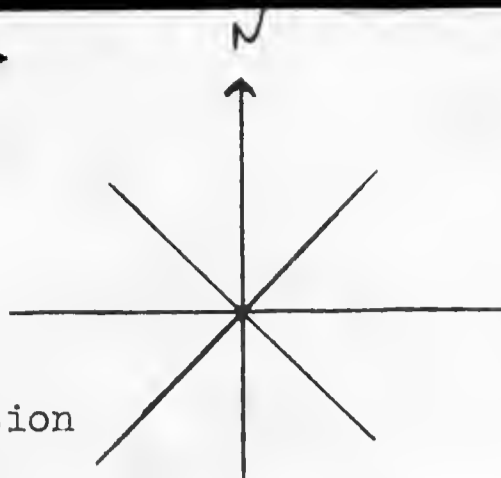
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
FITCH & BALCOMB
1600-SS Thompson + Huber
Date 29 NOVEMBER, 1966
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF 1620					begin observations 5 mi behind,
FF 1625	TERNSP.	25±5	a		feeding flock
1637	Common Noddy	1	W		
1635	Fairy tern	1	S		
1637	Pterodroma	1	S		WWP/BWP
1647	C. Noddy	1	S		
1647	Fairy tern	2	⊙		
1647	Shearwater	1			possibly ⓐ Wedge
1649	BWP	1			
1653			E		RAIN in front of ship about 3/4 mile
1653	BWP	1	E		
1653	Wedge Wedgetail	1	N		D.P.
1710	Wedgetail	1	E		"
1710	Fairy tern	3	⊙		
1710	Pterodroma	1	E		possibly BWP
1715	WWP/BWP	1	S		
1716	Common Noddy	2	NW		
1717	Pterodroma	1	NW		BWP/WWP type
1718	Fairy Ternus	2	⊙		? feeding
1721	RFB	1	⊙		Immature
SF 1725	Fairy Tern	3	S		
	Common Noddy	4			
	RFB	1			searching
1732	RFB	1			Ad Intermediate
					" "
1735	C. Noddy	1	W		
TF 1735	RFB	8			feeding 6 in 2 sub ad.
1735	Frig (Brist)	1	⊙		♀nd chased and received fish from tern bobby
1745	B. Frig	2	⊙		♀nd
1745	WTTB	1	W		
1746	Wedgetail	1	N		D.P.
FF 1755	Fairy tern	35	⊙		
	RFB	20	⊙		mostly intermediate a few dark phase, no white phase
	C. Noddy	900	⊙		feeding flock
	H. Noddy	1	⊙		
1800	Audubon's Shear	1	N		
1800	RFB	2	S		dark phase



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

1600-55 Thompson & Huber

Ship
Direction
187°

Date 29 Nov. 1966

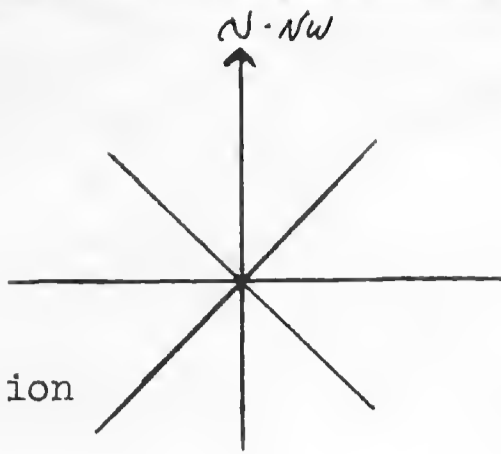
Pg. # 2

SPECIMEN

or

DIR. BAND NO. REMARKS

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1802	RFB	1	S		L Phase
SF	1802	C Noddy	15	NE		SEARCHING flock.
	1802	Wedgetail	2	S		DARK PHASE
SF	1804	C. Noddy	10	NE		SEARCHING flock
SF	1804	RFB	1			intermediates
		C Noddy	18	NW		SEARCHING flock.
	1805	Fairy Tern	1	N		
FK	1806	Fregata	1			
		C Noddy	150			Feeding flock - TUNA jumping
		Fairy Terns	40			
		RFB	1			
	1807	Sooty Terns	1			a. chandler
	1815	██████████				
TF	1815	C. Noddy	15	S		traveling
	1820	Wedgetail	1	NW		D.P.
	1830	Slenderbill	1	S		
	1835	Sooty/slenderbill	1	SW		
	1836					sunset, close watch



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SR-0800 Hubert Crossin
0800-1000 Thompson + CHAN
10-12 - TVX + Heiden
to SS - Chan + Tmt

Date 30 November 1966
Pg. # 1

SPECIMEN
or

DIURNAL
NON
GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0550					Sunrise - begin obs. Sea - rough - rough - rough.
0631	Wedgetail	1	SW		dark phase.
0635	Slenderbill	1	S		
0647	Fairy Tern	1	SE		
0648	Slenderbill	1	S		high circling in the wind (ca. 15 knots)
0750	"	2	S		
0752	C Noddy	1	SE		
0759	Sooty Shearwater	1	SE		light underwing lining - large
0800	S/SB	2	S		Slenderbills - dark underwing lining - trimmer smaller
0843	WEDGETAIL	1	S		dh ph.
0910	BWP	1	NE		
1041	Pterodroma sp	1	NE		
TF 1110	FAIRY TERN	1	SE		
TF 1116	SOOTY/SL.	6	SE		traveling.
FF 1143	C. Noddy	1	SE		} feeding
	HAW. NODDY	1	SE		
	FAIRY T.	7	SE		
	B.W.P.	1	SE		
	SOOTY SH.	1	SE		
1200					light underwing
1250 1250	Fairy tern	1	N		SWAIN'S IS. SIGHTED
1306					Swain's Is. 3 mi ahead
1715					RESUME OBS SWAIN'S 3 mi. BEHIND
SF 1725	FAIRY TERN	7	SE		SPREAD OUT - LOOSE FLOCK
1801	Slenderbill	1	S		
1822	WEDGETAIL	1	SE		dh ph.
1835					SUNSET CLOSE OBS.

Date Nov. 4, 66 Ship SHEARWATER (TAG-177) Cruise No. 16

Organization MSTS Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1800 Position: Lat. 21°05', Long. 158°19'

Miles travelled from 0000 hours to sunrise = —

Miles travelled from sunrise to sunset = 28

Miles travelled from sunset to 2400 hours = 58

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
3. LORAN AND VISUAL FIXES
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

<u>Time</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Wind Dir.</u>	<u>Wind Sp.</u>	<u>Wave Dir.</u>	<u>Wave Hgt.</u>
0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000						
1100						
1200						
1300						
1400	<u>2118</u>	<u>157 53</u>				
1500	<u>2118 40 N 04 W</u>	<u>157 33</u>	<u>238</u>	<u>10</u>		
1600	<u>21-10 N</u>	<u>158-03 W</u>	<u>238</u>	<u>10</u>		
1700	<u>21-08 N</u>	<u>158-11 W</u>	<u>238</u>	<u>9</u>		
1800	<u>21-05 N</u>	<u>158-19 W</u>	<u>238</u>	<u>9</u>		
1900	<u>21-02 N</u>	<u>158-28 W</u>	<u>238</u>	<u>9</u>		
2000	<u>20-54 N</u>	<u>158-37 W</u>	<u>238</u>	<u>9</u>		
2100	<u>20°52' N</u>	<u>158 44'</u>	<u>238</u>	<u>9</u>		
2200	<u>20° 48' N</u>	<u>158° 52' W</u>	<u>233</u>	<u>9.5</u>		
2300	<u>20° 41' N</u>	<u>159° 02' W</u>	<u>233</u>	<u>9.5</u>		
2400	<u>20° 34' N</u>	<u>159° 12'</u>	<u>232</u>	<u>9.5</u>		

2300 CHANGED CLOCKS 20^m TO + 10^h 20^m

Date Nov. 5, 1966 Ship Shearwater (TAG 17) Cruise No. 16

Organization _____ Recorder _____

Sunrise: Time 0538 Position: Lat. 20°06', Long. 159°03' ^{159-58W}

Sunset: Time 1718 Position: Lat. 19°09' N, Long. 161°31' W

Miles travelled from 0000 hours to sunrise = 41

Miles travelled from sunrise to sunset = 168

Miles travelled from sunset to 2400 hours = 72

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	1000	Loran	19°44' N	160°33' W
2.	1200	Loran	19°44' N	160°49' W
3.	1500	Loran	19°19' N	161°15' W
4.	1700	"	19°08' N	161°31' W
5.	2300	"	18°39' N	162°28' W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^{course}	Wind Sp. ^{speed}	Wave Dir.	Wave Hgt.
0100	20-35' N	159-12' W	233	8.5		
0200	20-25' N	159-29' W	233	8.5		
0300	20-17' N	159-42' W	233	9		
0400	20-13' N	159-46' W	233	9		
0500	20-10' N	159-53' W	233	9		
0600	20-03' N	160-02' W	233	9		
0700	19-58' N	160-10' W	233	8.5		
0800	19-54' N	160-16' W	232	8.5		
0900	19-49' N	160-24' W	235	9.0		
1000	19-44' N	160-33' W	235	9.0		
1100	19-38' N	160-40' W	235	9.0		
1200	19-34' N	160-49' W	238	9.0		
1300	19-29' N	160-57' W	238	9.0		
1400	19-25' N	161-05' W	238	9.5		
1500	19-19' N	161-15' W	238	9.0		
1600	19-14' N	161-22' W	238	9.0		
1700	19-08' N	161-31' W	238	9.5		
1800	18-09' N	161-45' W	238	9.5		
1900	18-58' N	161-49' W	238	9.5		
2000	18-53' N	161-58' W	238	10		
2100	18-49' N	162-08' W	238	10		
2200	18-44' N	162-18' W	238	10		
2300	18-39' N	162-28' W	238	10		
2400	18-34' N	162-37' W	233	10		

Date Nov 6 1966 Ship Shearwater (FAG-177) Cruise No. 16

Organization _____ Recorder _____

Sunrise: Time 0555 Position: Lat. 18°-04' N Long. 163°-25' W

Sunset: Time 1729 Position: Lat. 17°-07' N Long. 164°-58' W

Miles travelled from 0000 hours to sunrise = 54

Miles travelled from sunrise to sunset = 106

Miles travelled from sunset to 2400 hours = 69

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
			<i>Course</i>	<i>Speed</i>		
0100	18-28 N	162-43 W	233	9		
0200	18-25 N	162-49 W	233	8.5		
0300	18-17 N	163-00 W	233	9		
0400	18-13 N	163-09 W	233	9		
0500	18-09 N	163-17 W	233	9		
0600	18-04 N	163-25 W	233	9		
0700	17-59 N	163-34 W	233	9		
0800	17-54 N	163-42 W	233	9		
0900	17-51 N	163-50 W	233	8		
1000	17-45 N	163-58 W	233	9.5		
1100	17-40 N	164-07 W	233	9.5		
1200	17-35 N	164-16 W	233	9.5		
1300	17-28 N	164-25 W	233	9.5		
1400	17-23 N	164-32 W	233	9		
1500	17-17 N	164-40 W	233	9		
1600	17-13 N	164-47 W	233	9		
1700	17-02 N	164-54 W	233	9.5		
1800	17-02 N	165-03 W	233	9.5		
1900	16-56 N	165-11 W	233	9.5		
2000	16-50 N	165-19 W	233	9.5		
2100	16-44 N	165-27 W	238	9.5		
2200	16-38 N	165-40 W	238	10		
2300	16-32 N	165-49 W	238	10		
2400	16-26 N	165-57 W	238	10		

Date Nov 7-1966 Ship Shearwater (FAK177) Cruise No. 16

Organization _____ Recorder _____

Sunrise: Time 0604 Position: Lat. 16-08N, Long. 166-50W

Sunset: Time 1742 Position: Lat. 15-06N, Long. 168-21W

Miles travelled from 0000 hours to sunrise = 56

Miles travelled from sunrise to sunset = 109

Miles travelled from sunset to 2400 hours = 59

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0800	LORAN	15° 49'	167° 07'
2.	1200	"	15° 32'	167 37
3.	1800	Stars/lines	15-06N	168-25W
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir.	Wave Hgt.
0100	16-21N	166-06W	238	9		
0200	16-16N	166-14W	238	9		
0300	16-11N	166-23W	238	10		
0400	16-09N	166-32W	238	10		
0500	16-04N	166-40W	236	10		
0600	16-00N	166-49W	236	10		
0700	15-54N	166-58W	236	10		
0800	15-49N	167-07W	236	10		
0900	15-45N	167 19 W	236	10		
1000	15 40 N	167 24 W	236	10		
1100	15° 37' N	167 31 W	236	10.		
1200	15° 32' N	167 37 W	236	10.		
1300	15-28 W	167-44 W	236	10		
1400	15-22 N	167-54 W	236	10		
1500						
1600	15-19 N	168-12 W	236	09.5		
1700	15-08 N	168-20 W	236	09.5		
1800	15-06 N	168-28 W	236	09.5		
1900	15-02 N	168-37 W	236	09.5		
2000	14-57 N	168-46 W	236	09.5		
2100	14 53	168 55	233	10.		
2200	14° 47	169 04	350	9.5.		
2300	14° 57	169 05'	350	9.5		
2400	15° 07'	169 08'	350	9.5		

2200 DIVERTED TO JOHNSTON ISLAND FOR EMER. REPAIRS.

Date Nov. 8-1966 Ship Shearwater (FAG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0615 Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0100	Loran	15-16 N	169-10 W
2.	0200	✓	15-25 N	169-12 W
3.	0300	✓	15-34 N	169-15 W
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	15-16 N	169-10 W	350	10		
0200	15-25 N	169-12 W	350	10		
0300	15-34 N	169-15 W	350	10		
0400	15-43 N	169-18 W	350	10		
0500	15-51 N	169-20 W	350	9.5		
0600	16-04 N	169-22 W	350	10		
0700	16-13 N	169-24 W	350	10		
0800	16-22 N	169-26 W	350	10		
0900	16-35 N	169-28 W	350	10		
1000	moved at Johnston Island					
1100						
1200						
1300						
1400						
1500						
1600						
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						

Date 11-Nov.

Ship Shearwater (JAG-177)

Cruise No. 16

Organization _____

Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1744 Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = 1

Miles travelled from ¹⁵³⁰ sunrise to sunset = 22

Miles travelled from sunset to 2400 hours = 60

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	1600	Visual + radar	16°-40'	169°-33'
2.	2100	Loran	16°09'	170 18
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000						
1100						
1200						
1300						
1400						
1500						
1600	16°-40'N	169°-33'W	230	10		
1700	16°-35'N	169°-42'W	230	10		
1800	16°-27'N	169°-52'W	230	10		
1900	16°-21'N	170°-01'W	230	10		
2000	16°-14'N	170°-10'W	230	10		
2100	16°-09'N	170°-18'W	230	10		
2200	16°-05'N	170°-25'W	230	10		
2300	15°-58'N	170°-32'W	230	10		
2400	15°-52'N	170°-40'W	230	10		

Date 12 Nov Ship Shearwater (FAG-17) Cruise No. 16

Organization _____ Recorder _____

Sunrise: Time 0627 Position: Lat. 15°-11'N Long. 171°-33'W
 Sunset: Time 1802 Position: Lat. 13°-56'N, Long. 173°-09'W

Miles travelled from 0000 hours to sunrise = 65
 Miles travelled from sunrise to sunset = 120
 Miles travelled from sunset to 2400 hours = 60

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	15°-46'N	170°-48'W	230	10		
0200	15°-39'N	170°-55'W	230	10		
0300	15°-32'N	171°-03'W	230	10		
0400	15-26 N	171-11 W	230	10		
0500	15-20 N	171-20 W	230	10		
0600	15-15 N	171-28 W	230	10		
0700	15-09 N	171-36 W	230	10		
0800	15-03 N	171-43 W	230	10		
0900	14°55'N	171°53'W	230	10.		
1000	14°49'N	172°03'W	230	10.		
1100	14°40'N	172°12'W	230	11.		
1200	14°34'N	172°21'W	230	11.		
1300	14-27 N	172°30' W	230	11		
1400	14-20 N	172-40 W	230	11		
1500	14-16 N	172-47 W	230	11		
1600	14-09 N	172-52 W	230	10.5		
1700	14-03 N	173-00 W	230	10.5		
1800	13-56 N	173-09 W	230	10.5		
1900	13-50 N	173-17 W	230	10.5		
2000	13-44 N	173-25 W	230	10.5		
2100	13°41'N	173°34'W	230	10.5		
2200	13°33'N	173 42 W	230	10.5		
2300	13°28'	173° 50' W	230	10		
2400	13° 22' N	173 58 W	230	10.		

Date 13 NOV Ship SHEARWATER (005) Cruise No. 0020

Organization POBSP Recorder _____

Sunrise: Time 0637 Position: Lat. 12°-42'N, Long. 174-46

Sunset: Time 1819 Position: Lat. 11°-31'N, Long. 176°-16'W

Miles travelled from 0000 hours to sunrise = 62

Miles travelled from sunrise to sunset = 113

Miles travelled from sunset to 2400 hours = 60

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	13°-16'N	174°-07'W	230	10		
0200	13°-10'N	174°-15'W	230	10		
0300	13-04N	174-23W	230	10		
0400	12-57N	174-32W	230	10		
0500	12-52N	174-38W	230	10		
0600	12-47N	174-45W	230	10		
0700	12-41N	174-54W	230	10		
0800	12-34N	175-02W	230	10		
0900	12°25'N	175°00'W	235	10		
1000	12°19'N	175°16'W	235	10		
1100	12°12'N	175°30'W	230	10		
1200	12°06'N	175°38'W	230	10		
1300	12-00N	175-45W	230	10		
1400	11-01N	175-42W	233	10		
1500	11-55N	175-50W	233	10		
1600	11-45N	175-57W	233	10		
1700	11-39N	176-08W	233	10		
1800	11-33N	176-18W	233	10		
1900	11-27N	176-21W	233	10		
2000	11-21N	176-32W	233	10		
2100	11°16'N	176°39'W	233	10		
2200	11°10'N	176°45'W	233	10		
2300	11°03'N	176°56'W	233	10		
2400	10°57'N	177°05'W	233	10		

* BT, branch skiff-chase birds

Date Nov. 14 '66 Ship SHEARWATER () Cruise No. SIC 16

Organization MSTS Recorder _____

Sunrise: Time 0558 Position: Lat. 10°-34' N, Long. 177°-50' W

Sunset: Time 1835 Position: Lat. 9°-24' N, Long. 179-25

Miles travelled from 0000 hours to sunrise = 57

Miles travelled from sunrise to sunset = 118

Miles travelled from sunset to 2400 hours = 49

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1.

2.

3.

4. 1400

Celestial, RF 9°-51' N - 178°-55' W

5. 2000

Loran 9°14' N 178°35' W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	10-50N	177-13W	Co 233	Sp 10		
0200	10-54N	177-20W				
0300	10-48N	177-26				
0400	10-43N	177-34W				
0500	10-38N	177-42W				
0600	10-34N	177-50W				
0700	10-30N	177-57W				
0800	10-25N	178-04W				
0900	10-21N	178-12W				
1000	10-16N	178-20W				
1100	10-10N	178-29W				
1200	10° 04' N	178° 38' W				
1300	9° 58' N	178° 47' W				
1400	9° 51' N	178° 55' W				
1500	9° 44' N	179-03 W				
1600	9-41 N	179-07 W				
1700	9-35 N	179-14 W				
1800	9-28 N	179-21 W				
1900	9-21 N	179-28 W				
2000	9-15 N	179-35 W				
2100	9° 09' N	179° 44' W	✓	✓		
2200	9° 02'	179 50' W	233	9.0		
2300	8° 58'	179 56 W	233	9.0		
2400	8° 53'	179° 57 E	233	9.0		

Date 16 Nov 66 Ship () Cruise No.

Organization Recorder

Sunrise: Time 0651 Position: Lat. 05-50, Long. 179-27 E

Sunset: Time 1843 Position: Lat. 04-51, Long. 179-48 W

Miles travelled from 0000 hours to sunrise = 50

Miles travelled from sunrise to sunset = 117

Miles travelled from sunset to 2400 hours =

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

- | | | | | |
|----|----------------------|-------|----------|-----------|
| 1. | | | | |
| 2. | 0800 | LORAN | 05°44' N | 179°33 E |
| 3. | | | | |
| 4. | 0800 2000 | LORAN | 4°43 N | 179°42' W |
| 5. | 2300 | LORAN | 4°23' N | 179°31' W |

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100	06-26 N	178-58 E				
0200	06-19 N	179-03 E				
0300	06-13 N	179-09 E				
0400	06-06 N	179-14 E				
0500	06-02 N	179-18 E				
0600	05-56 N	179-23 E				
0700	05-51 N	179-28 E				
0800	5°43' N	179°32' E		140°	6.00	(ONE ENGINE)
0900	5-39 N	179-38 E				
1000	05-34 N	179-41 E				
1100	05-30 N	179-45 E				
1200	05-26 N	179-47 E				
1300	05-21 N	179-54 E				
1400	05-16 N	179-58 E				
1500	05-13 N	179-59 W				
1600	5-05 N	179-55 W				
1700	5-00 N	179-52 W		155	6	
1800	4-55 N	179-49 W				
1900	4-49 N	179-48 W				
2000	4-44 N	179-46 W				
2100	4°36' N	179°37' W		155	6.5	
2200	4°30' N	179°32' W		155	6.5	
2300	4°23' N	179°31' W		155	6.5	
2400	4°-18' N	178-28 W		155	6.5	

Date 17 Nov 1966 Ship () Cruise No. 20

Organization _____ Recorder _____

Sunrise: Time 0638 Position: Lat. 3-49N, Long. 179-11W

Sunset: Time 1847 Position: Lat. 2-23N, Long. 178-43

Miles travelled from 0000 hours to sunrise = 44

Miles travelled from sunrise to sunset = 90

Miles travelled from sunset to 2400 hours = 50

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

- | | | | | |
|----|------|-----------|---------|-----------|
| 1. | | | | |
| 2. | 0900 | CELESTIAL | 3°22' N | 179°08' W |
| 3. | | | | |
| 4. | | | | |
| 5. | 2200 | LORAN | 2°05' N | 178°27' W |

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir. ^{SW}	Wave Hgt.
0100	4°-12' N	179°24' W	155	6.5		
0200	4-07 N	179-21 W	"	"		
0300	4-01 N	179-19 W	"	"		
0400	3-55 N	179-17 W				
0500	3-50 N	179-15 W				
0600	3-44 N	179-12 W				
0700	3-38 N	179-10 W				
0800	3-32 N	179-07 W	↓	↓	RESUMED	2 ENGINES
0900	3° 22' N	179° 08'	150	8.		
1000	3° 14' N	179° 05' W	150	6.5	RESUMED	1 ENGINE
1100	3° 07' N	179° 02' W	"	"		
1200	3° 00' N	178° 58' W	"	"		
1300	2-54 N	178-55 W	"	"		
1400	2-47 N	178-50 W	"	"		
1500	2-40 N	178-47 W	"	"		
1600	2-38 N	178-48 W	"	"		
1700	2-33 N	178-46 W	"	"		
1800	2-27 N	178-44 W	"	"		
1900	2-22 N	178-43 W	"	"		
2000	2-17 N	178-41 W	"	"	RESUME	2 ENGINES
2100	2° 10' N	178° 36' W	122	9.0		
2200	2° 05' N	178° 27' W	122	10.		
2300	1° 59' N	178° 18' W	122	10		
2400	1° 53' N	178° 10' W	"	"		

Date 18 NovShip Shearwater (FAG17)Cruise No. 0020

Organization _____

Recorder _____

Sunrise: Time 0634 Position: Lat. 01-25 N, Long. 177-35 WSunset: Time 1833 Position: Lat. 00-58 N, Long. 176-20 WMiles travelled from 0000 hours to sunrise = 144Miles travelled from sunrise to sunset = 90Miles travelled from sunset to 2400 hours = 40

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
				<i>Cs</i>	<i>Spd</i>	
0100	01-47 N	178-05 W		122	7	
0200	01-43 N	178-00 W		122	7	
0300	01-38 N	177-54 W		122	7.5	
0400	01-32 N	177-49 W		122	7.5	
0500	01-28 N	177-43 W		122	7.0	
0600	01-24 N	177-38 W		122	7.5	
0700	01-21 N	177-32 W		122	7.5	
0800	1° 17' N	177° 27' W		122	7.5	
0900	1° 12'	177° 21' W		122	"	
1000	1° 05'	177° 15' W		112	"	
1100	1° 04'	177° 08' W		090	"	
1200	1° 04'	177° 00' W		090	"	
1300	1° 04'	176° 50'		145		
1400	0° 58'	176° 46'		145		
1500	0° 55'	176° 40'		090		
1600	Howland Island					
1700	0° 52' N	176-31 W		261°	8 kn	
1800	0° 52' N	176-24 W				
1900	0° 59' N	176-17 W				
2000	0° 03' N	176-10 W				
2100	1° 07' N	176 06' W				
2200	1° 11' N	176° 00' W		064°	7.5	
2300	1° 13' N	176° 53' W		064	7.5	
2400	1° 17' N	175° 47 W		"	"	

Date 19-Nov Ship Shearwater (FA-177) Cruise No. 0020

Organization _____ Recorder _____

Sunrise: Time 0627 Position: Lat. 0045 N, Long. 176-04 W

Sunset: Time 1841 Position: Lat. 00-15 N, Long. 178-07 W

Miles travelled from 0000 hours to sunrise = 65

Miles travelled from sunrise to sunset = 127

Miles travelled from sunset to 2400 hours = 53

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
2. 0900 LORAN/CELESTIAL 0°44'N 176°29'W
- 3.
- 4.
- 5.

Hourly Positions:



Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	01-09 N	175-44 W	160	9		
0200	01-00 N	175-42 W	160	9		
0300	00-53 N	175-40 W	160	8.5		
0400	00-43 N	175-35 W	160	8.5		
0500	00-44 N	175-46 W	270	12		
0600	00-45 N	175- 42 58 W				
0700	00-46 N	176-10 W				
0800	00-46 N	176-22 W				
0900	00° 42' N	176° 29' W	270	11		
1000	HOWLAND					
1100	0° 46' N	176° 46' W	250	11		
1200	0° 43' N	176° 57' W	250	11		
1300	0-40 N	177-07 W	250	11		
1400	0-38	177-11 W	250	11		
1500	0-30 N	177-29 W		11.5		
1600	0-26 N	177-39 W		11.5		
1700	0-22 N	177-49 W		11.5		
1800	0-18 N	178-00 W				
1900	0-14 N	178-10 W				
2000	0-10 N	178-21 W				
2100	0° 03' N	178° 20' W	145	9.0		
2200	0° 06' S	178° 10' W	145	9.5		
2300	0° 14' S	178° 06' W	"	9.5		
2400	0° 23' S	178° 02' W	"	9.5		

Date 20 Nov Ship Shearwater (T-AG-117) Cruise No. 0020

Organization _____ Recorder _____

Sunrise: Time 0631 Position: Lat. 0-26'S, Long. 177-24 W

Sunset: Time 1834 Position: Lat. 0-01'S, Long. 176-14 W

Miles travelled from 0000 hours to sunrise = 56

Miles travelled from sunrise to sunset = 90

Miles travelled from sunset to 2400 hours = 51

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir.	Wave Hgt.
0100	0°-31'S	177-57'W	145	9		
0200	0-42S	177-52'W	145	9.5		
0300	0-46S	177-47'W	145	9.5		
0400	0-47S	177-40'W	055	8.5		
0500	0-35S	177-33'W	055	8.5		
0600	0-28S	177-27'W	060	8.5		
0700	0-24S	177-20'W	060	8		
0800	0-19S	177-13'W	060	8		
0900	00 16' S	177° 10' W	060	7.5		
1000	00 10' S	177 03' W	"	8		
1100	00 04' S	176° 55' W	"	8		
1200	00° 02' N	176° 49' W	"	8		
1300	00-07 N	176-41 W	065	8		
1400	00-10 N	176-33 W	065	8		
1500	Baker Is					
1600	0-08N	176-25W	120	9		
1700	0-05N	176-19W				
1800	0-01N	176-12W				
1900	0-03S	176-05W				
2000	0-08S	175-57W				
2100	00 16' S	175° 55' W	110°	8 km		
2200	00 18' S	175° 47' W	030°	8		
2300	00 10' S	175° 45' W	"	9.5		
2400	00 02' S	175° 42' W	"	9		

Date 21 NovShip Shearwater (T-AG-17)Cruise No. 0020

Organization _____

Recorder _____

Sunrise: Time 0627 Position: Lat. 0-44N, Long. 176-31WSunset: Time 1836 Position: Lat. 0-40S, Long. 176-12WMiles travelled from 0000 hours to sunrise = 65Miles travelled from sunrise to sunset = 100Miles travelled from sunset to 2400 hours = 52

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0730	Geographical	00-47 N	176-39 W	Howland
2.	1224	"	00-08 N	176-29 W	Baker
3.	1500	Celestial	00-09 S	176-24 W	
4.					
5.					

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp. kts	Wave Dir. spcl	Wave Hgt.	SS	SD
0100	0-06 N	175-58 W		310	10			
0200	0-13 N	175-58 W						
0300	0-20 N	176-05 W						
0400	0-27 N	176-12 W						
0500	0-34 N	176-20 W						
0600	0-41 N	176-27 W		310				
0700	0-47 N	176-35 W	Howland	300	10			
0800	0-47 N	176-39 W		157				
0900	0° 37' N	173° 36' W		157	9.5			
1000	0° 28' N	176° 34' W		"	"			
1100	0° 20' N	176° 33' W		"	"			
1200	Bubble around							
1300	00-08 N	176-29 W						
1400	0-09 S	176-27 W						
1500	0-09 S	176-24 W						
1600	0-18 S	176-21 W						
1700	0-27 S	176-17 W						
1800	0-35 S	176-14 W						
1900	0-44 S	176-11 W						
2000	0-52 S	176-08 W						
2100	1° 01' S	176° 05 W		157	9.5			
2200	1° 10' S	176° 03 W		"	"			
2300	1° 19' S	175° 59 W		"	"			
2400	1° 28' S	175° 56 W		"	"			

Date 22 Nov 1966 Ship Shearwater (FA-177) Cruise No. 0020

Organization _____ Recorder _____

Sunrise: Time 0620 Position: Lat. 2-24 S, Long. 175-33 W

Sunset: Time 1836 Position: Lat. 4-15 S, Long. 174-50 W

Miles travelled from 0000 hours to sunrise = 60

Miles travelled from sunrise to sunset = 121

Miles travelled from sunset to 2400 hours = 52

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE	
1.	0100	LOTOM	01-36 S	175-54 W	
2.	1200	LAN RF	03-15 S	175-06 W	
3.					
4.	2100	RADAR	4°38'S	174°38'W	} Gardner Is
5.	2200	RADAR	4°45'S	174°34'W	

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	01-36 S	175-54 W	157	9.5		
0200	01-46 S	175-49 W	157	9.5		
0300	01-55 S	175-47 W	157	9.5		
0400	2-03 S	175-42 W	"	9.5		
0500	2-12 S	175-38 W	"	"		
0600	2-21 S	175-34 W	"	"		
0700	2-31 S	175-31 W	"	"		
0800	2-40 S	175-27 W	"	"		
0900	2-59 S	175-23 W	"	"		
1000	2-57 S	175-17 W	"	10		
1100	3-07 S	175-13 W	"	"		
1200	3-15 S	175-11 W	"	"		
1300	3-24 S	175-06 W	"	"		
1400	3-33 S	175-03 W	"	10		
1500	3-43 S	175-00 W	"	10		
1600	3-53 S	174-57 W				
1700	4-02 S	174-54 W				
1800	4-10 S	174-51 W				
1900	4-19 S	174-49 W				
2000	4-29 S	174-46 W				
2100	4°38'S	174-41 W	154	9.8		
2200	4°45'S	174°38' W	154	9.5		
2300	4°54'S	174°34' W	154	9.5		
2400	5°03'S	174°30' W	154	9.5		

Date 23 Nov 1966Ship Shearwater (FAG-17)Cruise No. 0020

Organization _____

Recorder _____

Sunrise: Time 0612 (207) 0543 Position: Lat. 06°03'S, Long. 174°06'WSunset: Time 1835 Position: Lat. 07°48'S, Long. 173°58'WMiles travelled from 0000 hours to sunrise = 64Miles travelled from sunrise to sunset = 125Miles travelled from sunset to 2400 hours = 59

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

1.

2.

3.

4.

5. ²³⁰⁰ VISUAL & RADAR 08°30'S 172°35'W

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir.	Wave Hgt.
0100	05-13S	174-27W	154	9.5		
0200	05-21S	174-23W	"	"		
0300	05-30S	174-19W	"	"		
0400	05-40S	174-15W	"	"		
0500	05-52S	174-11W		17		
0600	06-01S	174-07W	"	"		
0700	06-10S	174-03W	"	"		
0800	06-20S	173-59W	"	"		
0900	06° 31'S	173° 53'W	145	10.5		
1000	06° 42'S	173° 47'W	"	"		
1100	06° 50'S	173° 41'W	"	"		
1200	06-54S	173-39W	14	10.5		
1300	07-00S	173-28W	148	10.5		
1400	07-10S	173-23W	148	10.5		
1500	07-18S	173-18W	148	10.		
1600	07-26S	173-12W	148	10		
1700	07-35S	173-07W	"	"		
1800	07-43S	173-02W	"	"		
1900	07-52S	172-56W	"	"		
2000	08-00S	172-51W	"	"		
2100	08° 10'S	172° 46'W	"	10.1		
2200	08° 20'S	172° 40'W	"	10.1		
2300	08° 30'S	172° 35'W	165°	10.1		
2400	08° 39'S	172° 31'W	148	10.1		

Date 24 NovShip Shearwater T-AG-177Cruise No. 0020

Organization _____

Recorder _____

Sunrise: Time 0557 Position: Lat. 9°23'S, Long. 172-00 WSunset: Time 1830 Position: Lat. 11°11'S, Long. 171-04 WMiles travelled from 0000 hours to sunrise = 60Miles travelled from sunrise to sunset = 105Miles travelled from sunset to 2400 hours = 54

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	1700	Radar-Visual	11-03 S	171-06 W
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir.	Wave Hgt.
0100	08-48S	172-27W	148	10		
0200	08-50S	172-20W	"	"		
0300	09-05S	172-14W	"	"		
0400	09-14S	172-09W	"	"		
0500	09-23S	172-05W	"	"		
0600	09-32S	172-03W	"	"		
0700	09-41S	171-54W	"	"		
0800	09-50S	171-49W	"	"		
0900	09-58S	171-45W	"	"		
1000	10-07S	171-40W	145	"		
1100	10-15S	171-34W	"	"		
1200	10-24S	171-28W	"	"		
1300	10-28S	171-21W	"	"		
1400	10-36S	171-16W	"	"		
1500	10-45S	171-10W	"	"		
1600	10-52S	171-06W	V25	10		
1700	11-02S	171-06W	V20	10		
1800	11-06S	171-05W	170	10		
1900	11-16S	171-04W	"	"		
2000	11-25S	171-02W	"	"		
2100	11-35S	170-59W	170	10		
2200	11-45S	170-51W	170	10		
2300	11-55S	170-55W	170	10		
2400	12-05S	170-54W	170	10		

Date 25 Nov Ship Shearwater (AG 177) Cruise No. 0020

Organization _____ Recorder _____

Sunrise: Time 0546 Position: Lat. 12°-57' S Long. 170°-57' W

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = 53

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	12°-14' S	170°-52' W	170°	10		
0200	12-24 S	170-50 W	"	"		
0300	12-34 S	170-49 W	"	"		
0400	12-40 S	170-44 W	"	"		
0500	12-50 S	170-53 W	"	9.5		
0600	12-59 S	170-52 W	160	"		
0700	13-08 S	170-49 W	"	9		
0800	13-17 S	170-46 W	"	"		
0900	13 29	170 39	160	"		
1000	13 38	170 39	170	9		
1100	13 00	170 34 W	175	9.5		
1200	13-54 S	170 34 W	175	9.5		
1300	14-04 S	170-33 W	175	9.5		
1400	14-13 S	170-31 W	175	9.5		
1500						
1600						
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						

Date Nov. 29, 1966 Ship SHEARWATER () Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time 1836 Position: Lat. 13-50 S, Long. 170-30 W

Miles travelled from 0000 hours to sunrise = _____

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = 54

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

				<i>Cye</i>	<i>Spd</i>	
0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
1000						
1100						
1200						
1300						
1400						
1500						
1600						
1700	<u>14-07 S</u>	<u>170-29 W</u>		<u>351</u>	<u>11.5</u>	
1800	<u>13-57 S</u>	<u>170-31 W</u>		"	"	
1900	<u>13-46 S</u>	<u>170-33 W</u>		"	"	
2000	<u>13-36 S</u>	<u>170-35 W</u>		"	"	
2100	<u>13° 27' S</u>	<u>170° 37' W</u>		<u>351</u>	<u>9.5</u>	
2200	<u>13° 17' S</u>	<u>170 39 W</u>		"	"	
2300	<u>13° 08 S</u>	<u>170° 41' W</u>		"	"	
2400	<u>12° 58' S</u>	<u>170° 43' W</u>		"	"	

Date 30 Nov 1966 Ship Shearwater (FAG 117) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0550 Position: Lat. 12-07 S, Long. 170-48 W

Sunset: Time 1835 Position: Lat. 10-50 S, Long. 171-04 W

Miles travelled from 0000 hours to sunrise = 52

Miles travelled from sunrise to sunset = 78

Miles travelled from sunset to 2400 hours = 50

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
-------------	-------------	----------	-----------

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	12-49 S	170-45 W	351	9.5		
0200	12-39 S	170-46 W	351	9.0		
0300	12-30 S	170-47 W	351	9.0		
0400	12-24 S	170-46 W	351	8.5		
0500	12-16 S	170-47 W	351	8.5		
0600	12-07 S	170-48 W	345	8.5		
0700	11-58 S	170-50 W	"	"		
0800	11-50 S	170-53 W	"	"		
0900	11-42 S	170-55 W	345	8.5		
1000	11-34 S	170-51 W	"	"		
1100	11-27 S	170-51 W	"	"		
1200	11-19 S	171-02 W	"	"		
1300	11-10 S	171-02 W	"	"		
1400	Swamp Is.					
1500	"					
1600	"					
1700	"					
1800	10-56 S	171-05 W	003	8.5		
1900	10-47 S	171-04 W	003	8.5		
2000	10-38 S	171-04 W	003	8.5		
2100	10-29 S	171-03 W	003	9.0		
2200	10-19 S	171-03 W	"	"		
2300	10-10 S	171-02 W	"	"		
2400	10-00 S	171-02 W	"	"		

Date 1 Dec Ship Shearwater (FAG177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0554 Position: Lat. 08-59S, Long. 170-56' W

Sunset: Time 1826 Position: Lat. 07-07 S, Long. 170-48 W

Miles travelled from 0000 hours to sunrise = 61

Miles travelled from sunrise to sunset = 113

Miles travelled from sunset to 2400 hours = 55

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	9-49 S	170-58 W		6 sec 003	Spt 10 km	
0200	9-39 S	170-58 W		"	"	
0300	9-29 S	170-57 W		"	"	
0400	9-19 S	170-57 W		"	"	
0500	9-09 S	170-56 W		"	"	
0600	8-59 S	170-56 W		"	"	
0700	8-49 S	170-55 W		"	"	
0800	8-39 S	170-54 W		"	"	
0900	8° 32' S	54'				
1000	8° 23' S	53'				
1100	8° 14' S	53'				
1200	8° 05' S	170° 52' W				
1300	7-54 S	170-51 W				
1400	7-45 S	170-51 W				
1500	7-35 S	170-50 W				
1600	7-25 S	170-49 W		003	10	
1700	7-20 S	170-49 W				
1800	7-11 S	170-48 W				
1900	7-02 S	170-48 W				
2000	6-53 S	170-47 W		003	9.5	
2100	6° 44' S	170° 47' W				
2200	6° 34' S	170° 46' W				
2300	6° 25' S	170° 46' W				
2400	6° 15' S	170° 45' W				

Date 2 Dec Ship Shastwater () Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0559 Position: Lat. 05-18S Long. 170-43 W

Sunset: Time _____ Position: Lat. _____, Long. _____

Miles travelled from 0000 hours to sunrise = 54

Miles travelled from sunrise to sunset = 95

Miles travelled from sunset to 2400 hours = —

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0800	Celestial	04-59S	170-42 W
2.	1200	✓	04-21S	170-42 W
3.				
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	06-02S	170-49W	003	10		
0200	05-52S	170-44 W	✓	✓		
0300	05-48 S	170-43 W	✓	✓		
0400	05-27 S	170-43 W	✓	✓		
0500	05-27 S	170-43 W	"	9.5		
0600	05-18 S	170-43 W	"	"		
0700	05-09 S	170-42 W	"	"		
0800	04-59 S	170-42 W	"	"		
0900	04° 50'S	170° 42' W	003	9.5		
1000	04° 41' S	170° 42' W	"	"		
1100	04° 31' S	170° 42' W	"	9.5		
1200	04° 21' S	170° 42' W	"	"		
1300	04-12 S	170-42 W	"	9.5		
1400	04-02 S	170-42 W	000	9.5		
1500	03-53 S	170-43 W	335	9.5		
1600	03-44 S	170-43 W	Phoenix Is			
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						

Date 5 Dec Ship Shearwater (FAG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0603 Position: Lat. 3-44 S, Long. 170-43

Sunset: Time 1823 Position: Lat. 3-06 S, Long. 171-05 W

Miles travelled from 0000 hours to sunrise = —

Miles travelled from sunrise to sunset = 41

Miles travelled from sunset to 2400 hours = _____

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0800	Visual (Radar)	3°-37'S	170°-47' W
2.	1200	✓ ✓	3-05'S	171-06' W
3.				
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800	3-37 S	170-47 W				
0900	3-30 S	170-53 W				
1000	3-22 S	170-58 W				
1100	3-14 S	171-04 W				
1200	3-05 S	171-06 W				
1300						
1400						
1500						
1600						
1700						
1800						
1900						
2000						
2100						
2200						
2300						
2400						

Date 7 Dec. 66 Ship SHEARWATER () Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time _____ Position: Lat. _____, Long. _____

Sunset: Time _____ Position: Lat. 2-34 S, Long. 172-24 W

Miles travelled from ~~0000~~⁰⁸⁰⁰ hours to sunrise = _____

Miles travelled from sunrise to sunset = 88

Miles travelled from sunset to 2400 hours = 50

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	1200	Visual	2°53' S	171°40' W
2.				
3.				
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800	DEPARTED ENDERBURY FOR BAKER-HOWLAND					
0900	3°04' S	171°13' W	302°	9.5		
1000	3°01' S	171°22' W	295°	9.5		
1100	3°57' S	171°31' W	295°	"		
1200	2°53' S	171°40' W	290°	"		
1300	2-50 S	171-50 W	292	9.5		
1400	2-45 S	171-59 W	292	9.5		
1500	2-42 S	172-05 W	292	9.5		
1600	2-40 S	172-18 W	292	9.5		
1700	2-38 S	172-16 W	V21	V21		
1800	2-36 S	172-20 W	"	"		
1900	2-32 S	172-28 W	292	10		
2000	2-28 S	172-38 W	292	10		
2100	2°28' S	172°45' W	292	9.5		
2200	2°23' S	172°55' W	292	10.		
2300	2°20' S	173°05' W	292	10.		
2400	2°17' S	173°15' W	292	10.		

Date 8-Dec-66 Ship Shearwater (FAG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0622 Position: Lat. 01-45 S, Long. 173-55 W

Sunset: Time 1842 Position: Lat. 01-31 S, Long. 175-47 W

Miles travelled from 0000 hours to sunrise = 58

Miles travelled from sunrise to sunset = 122

Miles travelled from sunset to 2400 hours = 54

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	02-12 S	173-24 W	292	10		
0200	02-07 S	173-31 W	✓	9		
0300	02-00 S	173-37 W	✓	9		
0400	01-56 S	173-44 W	✓	9.5		
0500	01-51 S	173-52 W	✓	9.4		
0600	01-46 S	174-01 W	✓	9.4		
0700	01-44 S	174-10 W	✓	9.4		
0800	01-42 S	174-18 W	278	10		
0900	01 41' S	174 30' W	"	"		
1000	01 39' S	174 40' W	"	"		
1100	01 37' S	174 50' W	"	"		
1200	01° 36' S	175° 00' W	"	"		
1300	01-35 S	175-10 W	"	10		
1400	01-33 S	175-19 W	278	10		
1500	01-31 S	175-26 W	278	9.4		
1600	01-29 S	175-35 W	278	9.4		
1700	1-31 S	175-47 W				
1800	1-31 S	175-59 W		10		
1900	1-30 S	176-09 W		10		
2000	1-29 S	176-19 W	282	10		
2100	1-27 S	176° 29' W	"	10		
2200	1-25 S	176° 39' W	"	"		
2300	1-23 S	176° 49' W	"	"		
2400	01° 21' S	176° 58' W	"	"		

ENTERED GRID AT 1200 LAT 1° 36' S LONG 175° 00' W

Date 9 Dec 1966 Ship Shearwater (V-A617) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0635 Position: Lat. 00-33S, Long. 176-50 W

Sunset: Time 1843 Position: Lat. 00-47N, Long. 176-48

Miles travelled from 0000 hours to sunrise = 65

Miles travelled from sunrise to sunset = 97

Miles travelled from sunset to 2400 hours = 11

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	1100	Visual	00-04N	176-33 W
2.	1200	"	00-11N	176-29 W
3.	1300	"	00-19N	176-33 W
4.	16-1700	"	00-48N	176-39 W
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	0119	177-12W				
0200	01-12S	177-09W				
0300	01-04S	177-04W				
0400	0-36S	176-59W				
0500	0-47S	176-55W				
0600	0-38S	176-51W				
0700	0-30S	176-48W				
0800	0°21'S	176°45'W	015	9.0		
0900	0°12'S	176°42'W	030	9.0		
1000	0°04'S	176°38'W	"			
1100	0°04'N	176°33'W	"			
1200	BAKER ISLAND					
1300	0-19N	176-33W	340	9.0		
1400	0-28N	176-35W	355	9.0		
1500	0-37N	176-38W	355	9.0		
1600	0-48N	176-39W	350	9.0	Howland.	
1700	0-48N	176-39W	Howe	70	Howland.	
1800	0-47N	176-43W	270	10.5		
1900	0-47N	176-50W	Drifting			
2000	0°48'N	176°54'W	Howe	70	DRIFTING	
2100	"	176 56' W	"	"	270° 1.5 kt.	
2200	"	176 57' W	"	"		
2300	"	176 59' W	"	"		
2400	0°48'N	177°01'W	"	"		

Date 10 Dec '66 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0637 Position: Lat. 0°-48' N, Long. 176°-39' W

Sunset: Time 1846 Position: Lat. 1°-29' N, Long. 177°-59' W

Miles travelled from 0000 hours to sunrise = 33

Miles travelled from sunrise to sunset = 107

Miles travelled from sunset to 2400 hours = 53

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0700	Visual	0-48' N	176°-39' W
2.	1200	Celestial	1°-00' N	177°-15' W
3.	1900	Celestial	1°-30' N	178°-16' W
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	00-49' N	177°-02' W				
0200	00-48' N	177-03 W				
0300	00-48' N	177-08 W				
0400	00-48' N	176-59 W				
0500	00-48' N	176-45 W				
0600	00-48' N	176-42 W				
0700	Howland Is.					
0800	0° 43' N	176° 39' W	160°	9.5		
0900	0° 47' N	176° 48' W	295°	10.		
1000	0° 52' N	176° 57' W	"	"		
1100	0° 56' N	177° 06' W	"	"		
1200	1° 00' N	177° 15' W	"	"		
1300	1° 04' N	177° 25' W	"	"		
1400	1-05 N	177-29 W	Variable			
1500	1-09-N	177-30 W	"	"		
1600	1-14 N	177-38 W				
1700	1-21 N	177-51 W	295°	10		
1800	1-26 N	178-01 W	"	"		
1900	1-30 N	178-10 W	"	"		
2000	1-34 N	178-19 W	"	"		
2100	1-38' N	178° 17 W	175	9.0		
2200	1-41' N	178° 20' W	"	9.0		
2300	1-06' N	178° 20' W	"	9.0		
2400	0° 55' N	178° 20 W	"	9.0		

Date 11 Dec Ship Shearwater (FAG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0642 Position: Lat. 0°-03'N, Long. 178°-20'W

Sunset: Time 1850 Position: Lat. 1°-05'S, Long. 177°-57'W

Miles travelled from 0000 hours to sunrise = 53

Miles travelled from sunrise to sunset = 105

Miles travelled from sunset to 2400 hours = 44

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	<u>1200</u>	<u>Celestial</u>	<u>0°-45'S</u>	<u>178°-20'W</u>
2.				
3.				
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	<u>0-47'N</u>	<u>178-20 W</u>	<u>175°</u>	<u>8.5</u>		
0200	<u>0-42'N</u>	<u>178-20 W</u>	"			
0300	<u>0-34'N</u>	<u>178-20 W</u>	"			
0400	<u>0-25'N</u>	<u>178-20 W</u>	"			
0500	<u>0-17'N</u>	<u>178-20 W</u>	"			
0600	<u>0-08'N</u>	<u>178-20 W</u>	"			
0700	<u>0-00</u>	<u>178-20 W</u>	"			
0800	<u>0-09'S</u>	<u>178-20 W</u>	"			
0900	<u>0° 18' S</u>	<u>178° 20'</u>	"			
1000	<u>0° 27' S</u>	<u>178° 20'</u>	"			
1100	<u>0° 36' S</u>	<u>178° 20'</u>	"			
1200	<u>0° 45' S</u>	<u>178° 20' W</u>	"			
1300	<u>0-53'S</u>	<u>178-20 W</u>	"	<u>9</u>		
1400	<u>1-05'S</u>	<u>178-20 W</u>	"	<u>9</u>		
1500	<u>1-14 S</u>	<u>178-20 W</u>				
1600	<u>1-17 S</u>	<u>178-17 W</u>	<u>053</u>	<u>8.5</u>		
1700	<u>1-13 S</u>	<u>178-11 W</u>		"		
1800	<u>1-09 S</u>	<u>178-05 W</u>		"		
1900	<u>1-05 S</u>	<u>177-58 W</u>		"		
2000	<u>1-01 S</u>	<u>177-52 W</u>				
2100	<u>0° 56'</u>	<u>177 48' W</u>				
2200	<u>0° 46'</u>	<u>177 41 W</u>				
2300	<u>0° 41 S</u>	<u>177 34 W</u>				
2400	<u>0° 36' S</u>	<u>177 27' W</u>				

Date 12-Dec 1966 Ship Shearwater (AG-117) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0637 Position: Lat. 0-09 S, Long. 176-54 W

Sunset: Time 1840 Position: Lat. 01-04 N, Long. 176-39 W

Miles travelled from 0000 hours to sunrise = 43

Miles travelled from sunrise to sunset = 95

Miles travelled from sunset to 2400 hours = 37

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	0-36 S	177-24 W				
0200	0-32 S	177-20 W				
0300	0-27 S	177-15 W				
0400	0-21 S	177-10 W				
0500	0-16 S	177-04 W				
0600	0-11 S	176-58 W				
0700	0-06 S	176-52 W				
0800	0-02 S	176-46 W	056	8.0		
0900	0° 02' N	176° 40' W	050	"		
1000	0° 09' N	176 33' W	"	"		
1100	BAKER ISLAND		—			
1200	0° 24' N	176° 32' W	351	9.0		
1300	0-32' N	176-34 W	351	10.0		
1400	0-42' N	176-37 W	351	10.0		
1500	0-48' N	176 38 W	Howland			
1600	0-50' N	176 39 W	005	9.0		
1700	0-59' N	176-39 W				
1800	0-08' N	176-39 W				
1900	1-17' N	176-39 W				
2000	1-26' N	176-39 W				
2100	1° 28' N	176° 38' W	005	8.0		
2200	1° 36' N	176° 37' W	090	8.0		
2300	1° 36' N	176° 30' W	"	8.0		
2400	1° 36' N	176° 22' W	"	8.0		

Date 13 Dec 1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0636 , Position: Lat. 1°06'N, Long. 176°-14'W

Sunset: Time 1843 Position: Lat. 0°-30'S, Long. 176°-13'W

Miles travelled from 0000 hours to sunrise = 49

Miles travelled from sunrise to sunset = 97

Miles travelled from sunset to 2400 hours = 43

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	1-36 N	176°-14' W	090	7.5		
0200	1-36 N	176-08 W	175	7.5		
0300	1-30 N	176-09 W	180	"		
0400	1-23 N	176-11 W	180	"		
0500	1-16 N	176-13 W	180	"		
0600	1-09 N	176-14 W	180	"		
0700	1-02 N	176-15 W	180	"		
0800	0-55 N	176-15 W	180	"		
0900	0°49' N	176° 14' W	175	"		
1000	0°43' N	176° 14' W	175	"		
1100	0-35 N	176-15	170	7.5		
1200	0-27 N	176-15 W	170	7.5		
1300	0-21 N	176-14 W	170	7.5		
1400	0-13 N	176-16 W	170	8.5		
1500	0-05 N	176-19 W	170	8.5		
1600	0-04 S	176-17 W	160	8.5		
1700	0 14' S	176 15' W	"			
1800	0 23' S	176 14' W	"			
1900	0 33' S	176 13' W	"			
2000	0°42' S	176° 11' W	055	8.0		
2100	0°37' S	176° 04' W	"	"		
2200	0°32' S	175° 57'	025	"		
2300	0°25' S	175° 54'	"	"		
2400	0° 19' S	175° 51'	"	"		

Date 14 Dec-1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0633 Position: Lat. 1-47 N, Long. 175-43 W

Sunset: Time 1834 Position: Lat. 2-04 N, Long. 174-54 W

Miles travelled from 0000 hours to sunrise = 62

Miles travelled from sunrise to sunset = 97

Miles travelled from sunset to 2400 hours = 50

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	0700	Celestial	0-47'N	175-42' W
2.	1200	✓	01-20 N	175-23 W
3.	1900	✓	2-06 N	174-51 W
4.				
5.				

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	0°10' S	175-48 W	025	8		
0200	0-02 S	175-46 W	✓	✓		
0300	0-06 N	175-42 W	✓	✓		
0400	0-13 N	175-40 W	✓	✓		
0500	0-28 N	175-45 W	✓	9		
0600	0-38 N	175-44 W	✓	9		
0700	0-47 N	175-42 W	040	9		
0800	0-55 N	175-36 W	040	9		
0900	01°046' N	175 33' W	"	8.		
1000	01°087' N	175 30' W	"	"		
1100	01°129' N	175 26' W	"	"		
1200	01°20' N	175°23' W	"	"		
1300	01-27 N	175-19 W	"	"		
1400	01-34 N	175-15 W	✓	✓		
1500	01-40 N	175°-11 W	✓	✓		
1600	01-47 N	175-07 W	✓	✓		
1700	01-54 N	175-03 W				
1800	2-00 N	174-58 W	045	8		
1900	2-06 N	174-51 W	045	8.5		
2000	2-12 N	174-45 W	"	"		
2100	2° 19' N	174 39' W	045	9.5		
2200	2° 27' N	174 33' W	"	"		
2300	2° 34' N	174 26' W	"	"		
2400	2° 42' N	174° 20' W	"	"		

Date 15-Dec 1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0632 Position: Lat. 03°-22' N, Long. 173-48-W
 Sunset: Time 1823 Position: Lat. 04-32N, Long. 172-41 W

Miles travelled from 0000 hours to sunrise = 55
 Miles travelled from sunrise to sunset = 98
 Miles travelled from sunset to 2400 hours = 47

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir.	Wave Hgt.
0100	02°-49' N	174°-14' W	045°	9		
0200	03-56 N	174-07 W	✓	✓		
0300	03-03 N	174-03 W	✓	✓		
0400	03-10 N	173-57 W	✓	✓		
0500	03-12 N	173-56 W	✓	8.5		
0600	03-19 N	173-51 W	✓	✓		
0700	03-26 N	173-45 W	✓	✓		
0800	03-22 N	173-39 W	✓	✓		
0900	03 39' N	172 34' W	045°	8.5		
1000	03 45' N	173 28' W	"	"		
1100	03 52 N	172° 23' W	"	"		
1200	03° 58' N	173° 17' W	"	"		
1300	04-02 N	173-15 W	✓	7.8		
1400	04-08 N	173-09 W	✓	7.8		
1500	04-14 N	173-04 W	✓	✓		
1600	04-21 N	172-58 W	✓	✓		
1700	04-23 N	172-51 W				
1800	04-29 N	172-44 W				
1900	04-35 N	172-39 W				
2000	04-42 N	172-33 W				
2100	04 33'	172 28'	045	8.		
2200	04 25'	172 23'	"	"		
2300	04 17'	172 08'	"	"		
2400	05° 09' N	172° 12'	"	"		

Date 16 Dec 1966 Ship Shearwater (KAG-117) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0629 Position: Lat. 05-47, Long. 171-32

Sunset: Time 1809 Position: Lat. 6-58, Long. 170-16

Miles travelled from 0000 hours to sunrise = 55

Miles travelled from sunrise to sunset = 105

Miles travelled from sunset to 2400 hours = _____

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. ^C	Wind Sp. ^S	Wave Dir.	Wave Hgt.
0100	5-15' N	172-06' W	045	8		
0200	5-21' N	172-03' W	045	7.5		
0300	5-26' N	171-59' W	✓	✓		
0400	5-32' N	171-54' W	✓	✓		
0500	5-47' N	171-41' W	"	8.5		
0600	5-44' N	171-35' W	"	"		
0700	5-51' N	171-27' W	"	"		
0800	5-57' N	171-22' W	"	10		
0900	6-03' N	171-18' W	045	8.0		
1000	6-08' N	171-12' W	"	"		
1100	6-13' N	171-06' W	"	"		
1200	6-18' N	171-00' W	045	8.0		
1300	6-26' N	170-42' W	042	✓		
1400	6-32' N	170-37' W	✓	✓		
1500	6-38' N	170-31' W	✓	✓		
1600	6-45' N	170-27' W	✓	✓		
1700	6-51' N	170-21' W	✓	✓		
1800	6-57' N	170-16' W	✓	✓		
1900	7-03' N	170-10' W	✓	✓		
2000	7-15' N	170-12' W	042	8.0		
2100	7-21' N	170-06'	"	"	} DEAD RECKONING	
2200	7-27' N	170-01'	"	"		
2300	7-33' N	170-35' W	"	"		
2400	7-40' N	169-50' W	042	8.0		

Date 17-Dec 1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0623 Position: Lat. 8-06 N, Long. 169-14 W

Sunset: Time 1759 Position: Lat. 9-05 N, Long. 168-28 W

Miles travelled from 0000 hours to sunrise = 45

Miles travelled from sunrise to sunset = 76

Miles travelled from sunset to 2400 hours = 40

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	7-38' N	169-41' W				
0200	7-43' N	169-36' W				
0300	7-49' N	169-33' W				
0400	7-53' N	169-28' W				
0500	7-58' N	169-02' W				
0600	8-04' N	169-17' W				
0700	8-09' N	169-11' W				
0800	8-15' N	169-06' W	042	7.5		
0900	8 20' N	169° 03'	"	"		
1000	8 25' N	169° 00'	"	"		
1100	8 30' N	168° 57'	"	"		
1200	8° 36' N	168° 54' W	"	"		
1300	8-42-N	168-49 W	✓	7.0		
1400	8-46 N	168-45 W	✓	7.5		
1500	8-50 N	168-41 W	✓	7.0		
1600	8-55 N	168-37 W	"	6.5		
1700	9-00 N	168-32 W	"	6		
1800	9-05 N	168-28 W	"	6		
1900	9-09 N	168-24 W	"	6		
2000	9-14 N	168-20 W	"	6		
2100	9° 20' N	168° 16' W	"	6		
2200	9° 25' N	168° 11' W	"	6		
2300	9° 30' N	168° 07' W	"	6		
2400	9° 35' N	168° 02' W	"	6		

Date 18-Dec-1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0620 Position: Lat. 10-19 N, Long. 167-41 W

Sunset: Time 1749 Position: Lat. 11-05, Long. 167-00

Miles travelled from 0000 hours to sunrise = 44

Miles travelled from sunrise to sunset = 68

Miles travelled from sunset to 2400 hours = 41

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100	9-40 N	168-02 W	042	6.5		
0200	9-46 N	167-59 W	"	"		
0300	9-53 N	167-55 W	"	"		
0400	9-59 N	167-51 W	"	"		
0500	10-05 N	167-47 W	"	"		
0600	10-12 N	167-43 W	"	"		
0700	10-16 N	167-38 W	"	"		
0800	10-21 N	167-34 W	"	"		
0900	10 26' N	167 30' W	045	"		
1000	10° 32' N	167 26' W	"	"		
1100	10° 37' N	167 23' W	"	"		
1200	10 43' N	167° 19' W	"	"		
1300	10-47 N	167-16 W	"	5		
1400	10-51 N	167-12 W	"	"		
1500	10-55 N	167-9 W	"	"		
1600	10-58 N	167-6 W	"	"		
1700	10-52 N	167-2 W	"	"		
1800	11-06 N	166-59 W	"	"		
1900	11-17 N	166-56 W	"	"		
2000	11-14 N	166-53 W	"	"		
2100	11-19 N	166 47' W	"	6.0		
2200	11-25 N	166 42' W	"	"		
2300	11-31 N	166 37' W	"	"		
2400	11° 37' N	166° 32' W	"	"		

Date 19 Dec 1966 Ship Shearwater (TAG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0619 Position: Lat. 11-59N, Long. 166-14W

Sunset: Time 1740 Position: Lat. 12-47N, Long. 165-33W

Miles travelled from 0000 hours to sunrise = 34

Miles travelled from sunrise to sunset = 62

Miles travelled from sunset to 2400 hours = 29

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
0100	11° 37' N	166° 31' W	045	6		
0200	11° 41' N	166° 28' W	045	6		
0300	11° 47' N	166° 23' W	045	6		
0400	11° 52' N	166° 19' W	045	6		
0500	11-58 N	166-17 W	6	5.5		
0600	11-58 N	166-15 W	6	6		
0700	12-02 N	166-13 W	6	6		
0800	12-06 N	166-08 W	6	6		
0900	12 10' N	166 05'	"	"		
1000	12 14' N	166 01'	"	"		
1100	12 18' N	165 57'	"	"		
1200	12-23 N	165-54	"	"		
1300	12-28 N	165-50 W	6	6		
1400	12-32 N	165-48 W	6	6		
1500	12-36 N	165-44 W	6	6		
1600	12-40 N	165-40 W	6	6		
1700	12-45 N	165-35 W	"	6		
1800	12-48 N	165-31 W	"	6		
1900	12-53 N	165-26 W	"	6		
2000	12-57 N	165-23 W	"	6		
2100	13 01' N	165 20' W	"	6		
2200	13 05' N	165 16' W	"	"		
2300	13 09' N	165 12' W	"	"		
2400	13 12' N	165 09'	"	"		

Date 20 Dec-1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0614 Position: Lat. 13-19N, Long. 165-00W

Sunset: Time 1734 Position: Lat. 14-07N, Long. 164-13W

Miles travelled from 0000 hours to sunrise = 25

Miles travelled from sunrise to sunset = 66

Miles travelled from sunset to 2400 hours = 49

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
			Dir	Spd		
0100	13-02N	165-15W	045	4.5		
0200	13-05N	165-12W	✓	4.5		
0300	13-08N	165-10W	245	4.5 km		
0400	13-11N	165-07W	"	"		
0500	13-14N	165-04W	"	"		
0600	13-17N	165-01W	"	"		
0700	13-21N	164-58W	"	"		
0800	13-24N	164-54W	"	"		
0900	13-29' N	164-50' W	"	"		
1000	13-33' N	164-47' W	"	"		
1100	13-37' N	164-44' W	"	"		
1200	13-42 N	164-41	"	"		
1300	13-45 N	164-36W	✓	✓		
1400	13-50 N	164-32W	✓	✓		
1500	13-53 N	164-27W	✓	6		
1600	13-59N	164-23W	✓	6+		
1700	14-04N	164-16W	"	7.3		
1800	14-09N	164-11W	"	"		
1900	14-15N	164-05W	"	"		
2000	14-20N	164-00W	"	"		
2100	14-26N	163-55W	✓	7.5		
2200	14-32N	163-50W	✓	7.5		
2300	14-38N	163-45W	✓	7.5		
2400	14-44N	163-40W	✓	7.5		

Date 21-Dec 1966 Ship Shearwater T-(AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0615 Position: Lat. 15-06 N, Long. 163-29

Sunset: Time 1724 Position: Lat. 16-06 N, Long. 162-38 W

Miles travelled from 0000 hours to sunrise = 36

Miles travelled from sunrise to sunset = 77

Miles travelled from sunset to 2400 hours = 45

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
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- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir?	Wind Sp.	Wave Dir.	Wave Hgt.
0100	14-42	163-47	045	6		
0200	14-46	163-43	✓	✓		
0300	14-51	163-40	✓	✓		
0400	14-55	163-38	✓	✓		
0500	15-00	163-33	✓	✓		
0600	15-05	163-29	✓	✓		
0700	15-10	163-26	✓	✓		
0800	15° 16'	163 23'	045	6.0		
0900	15° 20'	163 20	"	"		
1000	15° 26'	163 15'	048	7.5		
1100	15° 31'	163 10'	"	"		
1200	15° 37' N	163° 04' W	048	"		
1300	15 43 N	162 59 W	048	7		
1400	15-48 N	162-55 W	050	7		
1500	15-54 N	162-50 W	050	7		
1600	15-58 N	162-45 W	"	"		
1700	16-04 N	162-40 W	"	"		
1800	16-09 N	162-35 W	"	"		
1900	16-15 N	162-31 W	"	"		
2000	16-20 N	162-27 W	"	"		
2100	16° 25' N	162° 23' W	"	6.5		
2200	16° 30' N	162° 19' W	"	6.5		
2300	16° 35' N	162° 15' W				
2400	16° 40' N	162° 11' W				

Date 22 Dec 1966 Ship Shearwater (AG-177) Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0612 Position: Lat. 17-09N, Long. 161-37W

Sunset: Time 1713 Position: Lat. 18-11N, Long. 160-39W

Miles travelled from 0000 hours to sunrise = 42

Miles travelled from sunrise to sunset = 86

Miles travelled from sunset to 2400 hours = 61

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

Time	Latitude	Longitude	Wind Dir. Cse	Wind Sp. Spd	Wave Dir.	Wave Hgt.
0100	16-46N	162-04W	050	7		
0200	16-51N	161-59W	"	"		
0300	16-55N	161-54W	"	"		
0400	17-00N	161-49W	"	"		
0500	17-04N	161-44W	"	"		
0600	17-09N	161-38W	"	"		
0700	17-13N	161-32W	"	"		
0800	17-18N	161-27W	"	"		
0900	17° 24' N	161° 21' W	045	"		
1000	17° 30' N	161° 16' W	"	"		
1100	17° 36' N	161° 11' W	"	"		
1200	17° 42' N	161° 06' W	"	"		
1300	17-47N	161-02W	✓	✓		
1400	17-54N	160-56W	✓	✓		
1500	17-59N	160-48W	✓	✓		
1600	18-05N	160-41W	✓	7.5		
1700	18-12N	160-35W	"	8		
1800	18-15N	160-30W	"	8		
1900	18-21N	160-24W	"	"		
2000	18-27N	160-18W	"	"		
2100	18 34' N	160 12' W	040	9.0		
2200	18 41' N	160° 06' W	"	"		
*2300	18° 49' N	160° 00' W	"	"		
2400	18° 54' N	159° 56' W	"	"		

* Adv. clocks 20 m.

Date 23-Dec 1966 Ship Shearwater T-16177 Cruise No. _____

Organization _____ Recorder _____

Sunrise: Time 0710 Position: Lat. 19-43N, Long. 159-14W

Sunset: Time 1758 Position: Lat. 21-06N, Long. 158-03W

Miles travelled from 0000 hours to sunrise = 68

Miles travelled from sunrise to sunset = _____

Miles travelled from sunset to 2400 hours = _____

58
49
107

TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
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- 1.
- 2.
- 3.
- 4.
- 5.

Hourly Positions:

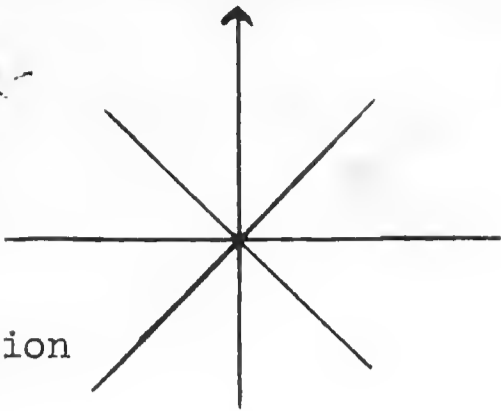
Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
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C SA

*0100	18-57N	159-54W				
0200	19-04N	159-48W				
0300	19-12N	159-42W				
0400	19-19N	159-38W				
*0500	19-28N	159-28W				
f10 ^h 0600	19-34N	159-22W				
0700	19-42N	159-15W				
0800	19-49N	159-09W				
0900	19-56N	159-02W	040	9.5		
1000	20-04N	158-54W	"	"		
1100	20-12N	158-48W	"	10		
1200	20-20N	158-41W	"	10		
1300	20-29N	158-34W	✓	✓		
1400	20-36N	158-27W	✓	✓		
1500	20-43N	158-21W				
1600	51	15				
1700	59	9				
1800	07	3				
1900						
2000						
2100						
2200						
2300						
2400						

* Del v. clock 20 min

N NW



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

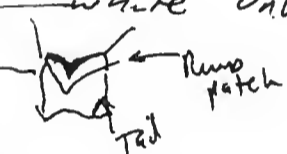
SPECIMEN DIURNAL NON GRID
or

OBSERVERS:

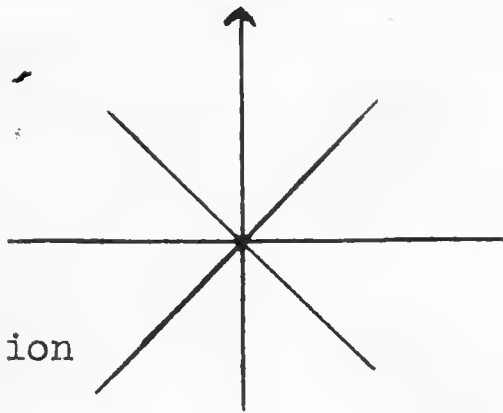
SR-0800 CHAN + HEIDEN
0800-1000 - Thompson + Fitch
1000-1200 Fitch + Belderb
1200-1400 Thompson + Crossin
14-16 - Haber + Fitch
16-55 - FITCH + BALCOMB

Date 1 DEC. 1966
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0554					SUNRISE; BEGIN OBSERVATIONS
FF 0644	FAIRY TERN	3	C		
	SOOTY TERN	1	C		ad
0645	HAW? NODDY	2	C		distinct white flash on underwing
0717	S/SB	1	S		
0728	BULWER'S	1	NE		
0733	SOOTY SHEAR.	1	S		distinct white flash on underwing
0755	WWP?	1	ce		dark phase, white chin + throat w pattern
0930	B.W.P	1	SE		
0933	Bulwer's	1	SE		
0948	BWP	1	SE		
0950	Sooty Shear	1	SE		white underwing line
0952	Leach's Petrel	1	ce		
0955	Bulwer's	2	ce		
1010	BWP	1	S		
1040	PH. IS. / TAHITI	1	E		BROWN BACK
1122	Fairy Tern	3	NW		
1122	Bulwer's	1	NW		
1123	Sooty Tern	3	E		
1136	SOOTY SHEAR.	3	E		adults.
1146	Large Pterodroma	1	E		distinct white patch underwing
1221	Sooty TERN	1	NE		distinct - possibly Juan Fernandez
1236	Sooty TERN	1	SE		ad.
1242	Wilson's P.	2	SE		Immature
1317	Sooty TERN	1	SE		yellow keel extending beyond tail - usually flight
1322	Bulwer's P.	1	N		ad
1337	Fairy TERN	2	ce		feeding - caught a fish
	Sooty TERN	2	NW		
1351	Slenderbill	1	S		
1451	Mottled pet	1	SW	#2610	
1525	R. TT B	1	ce	615-10958	collected from ship by L. Haber.
1545	Wedgetail	1	S		SEEN feeding (banded)
1605	Bulwers	1	E		D. Phase
1607	Sooty Shear.	2	E		
1646	Sooty Tern	1	S		adult
1648	Wedgetail	1	S		dark phase
1732	Sooty Shear	1	S		
1738	Sooty Tern	1	S		adult
1745					Steuella roseiventris - not spinning, but pretty good look

NNW



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

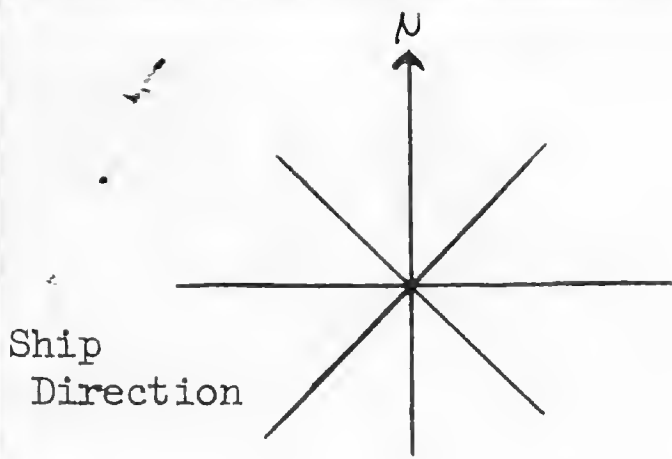
* 1600-SS Fitch and Bakomb

Date 1 December 1966
Pg.# 2

SPECIMEN
or

Diurnal
Non Grid

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS	
1747	Sooty Shear.	1	S			
1757	Sooty Shear	5	S		prominent white underwing.	
FF 1800	Sooty tern	24	⊙		Ad ——— terns diving into water	
	wedgetail	1	⊙		dk. phase	
	fairy tern	1	⊙		light phase	
TF 1807	Sooty tern	19	NE		Ad	
1807	Sooty/Sbill	5	S		} large fish jumping underneath flock	
1807	"	1	S			
1807	"	4	S			
1807	wedgetail	1	⊙			dk phase
RF 1819	Sooty TERN	22	⊙		} a feeding fish jumping below them	
1824	B.W.P.	1 1	SW			ADULTS (20) + immatures - (1)
1832 1836	Sooty tern	5	NE			Ad.
1836					Sunset - cease observations.	



OBSERVERS:

06-0800 - Balcom & Egan
08-1000 - Fitch + Heiden

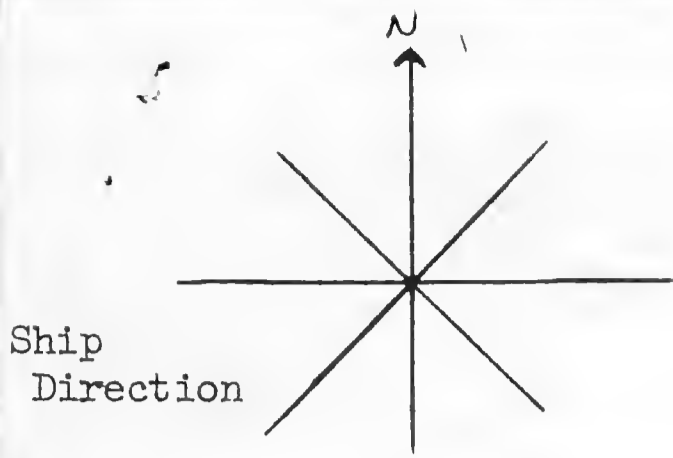
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 2 DEC. 1966
Pg.# 1

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0600					SUNRISE - BEGIN THEM
SF 0626	Sooty tern	7	⊙		Ad.
	WEDGETAIL	1	∞		sh pl.
0633	SOOTY TERN	3	W		ad.
0643	SLENDERBILL	1	∞∞		close to bow
0649	SOOTY TERN	2	E		ad
0651	SLENDERBILL	2	S		
TF 0653	SOOTY TERN	5	⊙		ad
0654	" "	2	N		ad
0702	" "	1	E		ad
0714	" "	2	N		"
0715	" "	1	NW		"
0720	" "	1	NE		ad.
0723	" "	2	NE		"
0726	ruddy turnstone	1	N		
0738	Sooty tern	4	N		Ad
0746	"	4	NE		"
TF 0754	"	10	⊙		"
0755	Sooty/S/bill	4	SW		
0757	Sooty tern	1	NE		Ad
0801	Sooty Tern	2	NNW		adults
0817	Sooty Tern	3	N		adults
0825	Sooty Tern	4	E		adults
0838	Sooty Tern	3	E		adults
0840	Phoenix Tahiti Petrel	1	SE		
0844	Sooty Tern	2	E		adults
0913	Sooty Tern	1	E		adult
0930	BULWER'S PET.	1	N		
0950	BWP	1	S		
1007	Sooty Tern	1	W		ad.
1008					Pilot whales ^{20^t} jet black, diving, arch the rump extensively before diving
1010	Sooty terns	3			ad feeding over whales
1014	S/SB	1	S		





SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

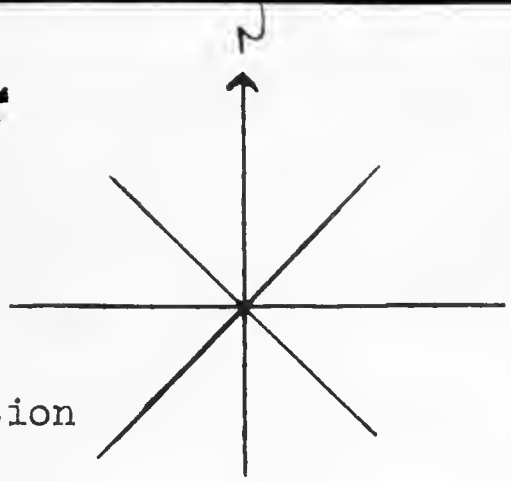
OBSERVERS:

Crossin & Thompson 10-12
Balcomb - 1200-1400
14-16 CHANE HURER

Date 2 December 66
Pg.# 2

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1025	S/SB	1	S		
1025	sooty tern	1	N		ad.
1027	Grayb "	1	N		ad.
1045	Leach's S.P.	2	N		narrow V white rump, dark extending through center of white V.
1125	S/SB	1	S		
1130	slenderbill	1	S		dark underwings
TF 1201	Sooty tern	5	N		loose flock Ad
1210	"	3	N		Ad.
1210	G Frigate	1	⊙		Ad ♂
1238	Slenderbill	1	SW		
1303	BFB	1	N		Ad.
1329	"	1	⊙		"
1420	WEDGETAIL	1	⊙		dk. ph.
1423	SOOTY TERN	1	⊙		ad.
1428	BULWERS	1	SE		
1440	BFB.	1	⊙		imm
1440	Bluegray nod	1	⊙		
1440	Graybacked tern	1	S		
1454	TERN SP	1	S		G-BT/ST
1455	SOOTY TERN	1	SE		ad.
1456	WEDGETAIL	1	⊙		dk ph
1457	"	1	⊙		"
1458	SOOTY TERN	1	S		ad
1459	AUDUBON'S	1	SE		
1502	SOOTY TERN	1	NW		imm.
1505	AUDUBON'S	1	E		
1509	Wedgetail	1	E		RP.
1511	SOOTY TERN	1	SE		ad
1512	AUDUBON'S	2	⊙		
1513	Wedgetail	1	N		RP.
1514	Bluegray nod.	1	⊙		
1515	BWP	1	N		
1517	sooty tern	1	SE		ad
1518	wedgetail	1	W		RP.
1520					island in sight from bow
1522	Sooty tern	2	S		Ad
1528	" "	2	SE		Ad
1530	BFB	1	⊙		imm circling ship
1534	"	1	⊙		imm joined with one of 1530
1535	Sooty tern	1	N		Ad



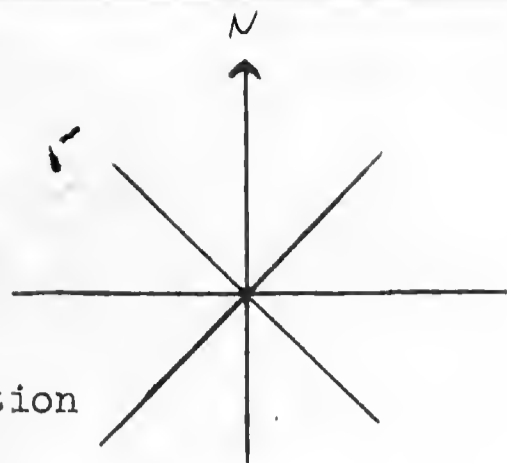
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
14-1600 Chandler, Huber

SPECIMEN *non bird*
or

Date 2 Dec. 1966
Pg.# 3

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
B 1536	BFB	4	ce		imm following 1 is banded } diving
1543	BFB	2	ce		
1544	SOOTY TERN	2	ce		ad following
1545	RFB	1	ce		ad int "
1545					PHOENIX 3-4 mi CLOSE OBS.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

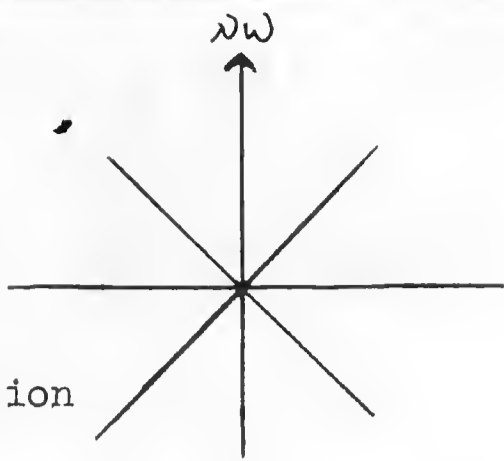
08-1000 CHAN

Date 5 DEC 1966

Pg.# 1

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0800					PITCAIRN 6 MI. BEHIND BEGIN OBS.
0802	BFB	3	ce		all imm following
0803	WTSP	1	ce		
0805	GBT	1	N		ad.
0807	SOOTY TERN	1	N		ad.
0809	" "	1	SE		ad.
0810	" "	1	ce		ad
0813	" "	3	N		ads following
0814	" "	1	E		ad.
0815	BULWER'S	2	ce		
0820	SOOTY TERN	2	ce		ads.
0821	" "	1	ce		ad.
0824	" "	4	SE		ads.
TF 0825	" "	2 5	ad		ad
0828	" "	1	S		ad.
0830	" "	2	W		ad.
0836	" "	2	S		ad.
0843	BULWER'S	1	ce		
0844	SOOTY TERN	1	ce		ad.
0845	" "	2	ce		ad.
0847	GBT	1	ce		imm
0848	SOOTY TERN	1	NE		ad.
0850	BG NODDY	1	ce		
0854	SOOTY TERN	1	ce		ad
TF 0855	" "	7	N		all ads.
0857	" "	1	E		ad.
0902	BFB	1	ce		imm following
TF 0907	SOOTY TERN	14	N		ads
FF 0914	BFB	1	ce		ad.
	SOOTY TERN	3	ce		ad
	BGN	1			landing on H2O occasionally, phlooting.
0919	SOOTY TERN	1	SW		ad.
0932	WEDGETAIL	1	ce		dh. ph.
0933	BFB	1	ce		imm following
0939	SOOTY TERN	3	NW		ad's.
0949	" "	1	NW		ad.
0950	Bulwer's	1	E		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

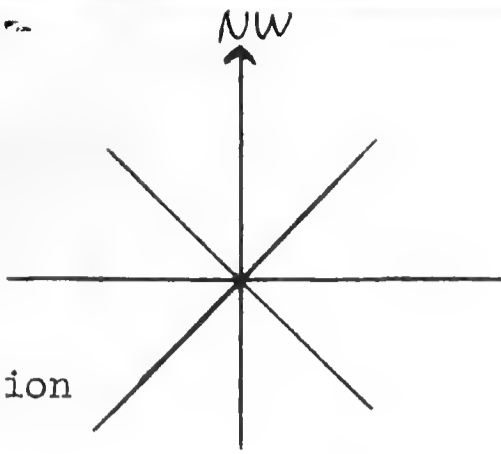
Cassidy 10-12

Date 5 Dec. 1966
Pg. # 2

SPECIMEN
or

Ship
Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0953	Sooty Tern	2	N		ad's
0955	Blue Gray Noddy	1	E		
1000	BFB	2	SE		ad's.
1002	Gr. Frig.	2	⊙		ad ♂ + ad. ♀
1004	Gr-back tern	1	N		feeding
1008	sooty tern	1	E		ad. light phase.
1012	RFB	1	S		ad } flying together
	BFB	1	S		
1014	BFB	1	S		ad.
SF 1016	Sooty Tern	12	}		Tern ad's. circling many swellings - appear as natural slicks in long lines up to 1-1/2 miles
	Frig sp.	1			
1016	Bl. Gray Noddy	1	NE		
1020	Sooty Tern	1	N		ad
1020	BFB	2	N		imm.
1024	G Backed tern	1	S		ad.
1026	RFB	1	S		imm. flew straight into jacking staff, but recovered before hitting H2O.
1027	Sooty Tern	2	N		ad.
1028	RFB	1	S		ad - int. phase
1030	Aud. Shear	4			sitting on H2O.
1033	Sooty Tern	2	S		ad.
1035	" "	3	S		"
1035	" "	4	N		"
IF 1036	Sooty Tern	5			ad. traveling low.
	RFB	1			imm
1038	RFB	1	S		sub ad.
1038	Sooty Tern	1	S		ad.
1042	" "	1	S		ad. - Endeavour house & lighthouse well in view
1044	" "	2	S		ad.
1044	BFB	1	N		imm.
1046	Sooty Tern	2	N		ad
1046	Gr. Frig.	1	⊙		imm.
1047	BFB	4	N		imm.
1050	Sooty Tern	4	N		ad.
1052	Gr-back tern	1	NW		ad.
1100					close obs. for island landing



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

OS- CHAN

Date 7 DEC. 1966
Pg. # 1

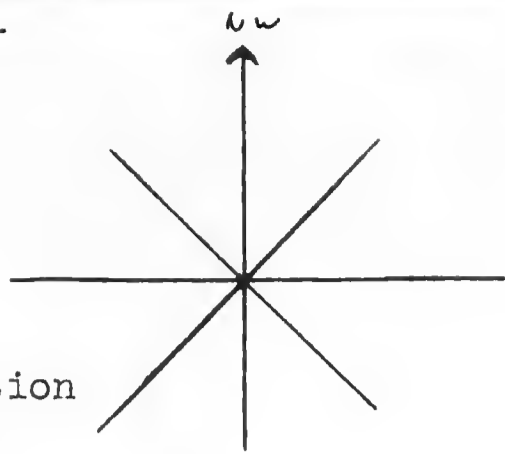
SPECIMEN
or

Ship
Direction

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
					ENDERBURY 4 mi. ASTERN BEGIN OBS.
TF 0810					
0811	RUDDY TURNST.	5	cee		CIRCLED SHIP
0812	BFB	4	cee		imm, following - diving
0813	SOOTY TERN	1	NW		ad.
0816	" "	2	NW		ad.
B 0818	BFB	4	cee		imm following 1 is banded all 8 landed on H ₂ O when BT stop was made
0823	SOOTY TERN	2	E		ad.
0825	" "	2	NW		ad.
SF 0827	" "	9	cee		ad high over H ₂ O
0832	" "	2	SE		ad
0833	GBT	2	SE		ad.
0834	COM. NODDY	1	SE		
0835	BFB	1	cee		ad joined immatures following
FF 0840	TERN SP.	800 ± 100	cee		majority undoubtedly sooty but GBT + CNT seen. flock is 3-4 miles long in a rough S to N direction. FEEDING HEAVILY BOOBIES DIVING
	FRIG SP.	30 ± 5	cee		
	BFB	50 ± 10	cee		
0907	RFB	2	SE		ad; int pl.
0910	GBT	1	N		ad.
0913	BFB	2	cee		imm. following
0915	SOOTY TERN	1	SE		ad.
TF 0920	HAW. NODDY	6	N		low 2-3' above H ₂ O
SF 0923	SOOTY TERN	55	cee		ads. high
	HAW. NODDY	3	cee		low
	WEDGE TAIL	1	cee		dh pl
	BFB	2	cee		imm.
0942	SOOTY TERN	3	E		ads - 100'
SF 0945	FRIG SP	5	cee		200 - 600' up
FF 0949	SOOTY TERN	120 ± 10	cee		ad. } bading lightly
	FRIG SP.	2	ce		
	WEDGE TAIL	4	cee		dh pl
0954	WRSP	3	N		3 close together, direct flight 1 sat on H ₂ O then
0955	WEDGE TAIL	1	cee		dh appeared to be leeches
0956	BFB	1	cee		
0957	FRIG SP.	1	cee		imm follow
0958	SOOTY TERN	3	SE		ad 800'

(allot 600 ST
100 CN
100 GBT
RSC)



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

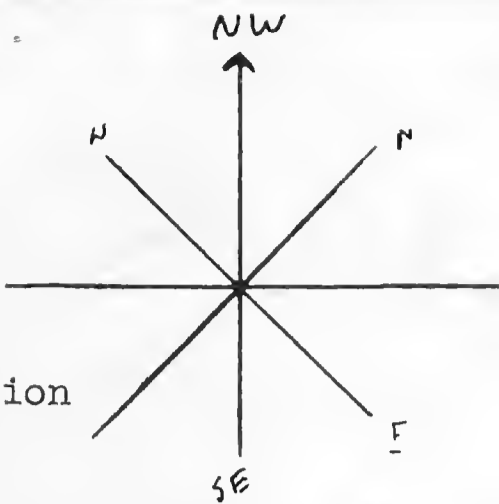
OS-1200 - CHAN

Date 7 Dec. 1966
Pg.# 2

SPECIMEN
OR

Ship
Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0959	SOOTY TERN	2	SE		ad.
1000	" "	1	SE		ad.
1007	WRSP	3	N		lauches? some as preceding 3??
1008	FRIG SP	1	ce		ad ♀
1009	SOOTY TERN	3	SE		ad.
1010	" "	1	ce		hi! 500'
SF 1017	" "	90±5	ce		ad. <u>A UNIQUE OBS.</u> when first sighted
	FRIG. SP	3	ce		appeared as a hi swirl between 100 + us high as 700-800 feet. Similar to island imm pre-breeding swirls but higher + not as compact. Frigate were soaring under them birds were calling, <u>no</u> nuptial soaring observed. part of swirl dropped + feed lightly. I have never seen a pelagic flock at this height
	RFB	1	ce		
	BFB	2	ce		
1020	SOOTY TERN	4	ce		
1028	" "	1	SE		ad.
1030	RUNNY TURNST.	1	ce		circled ship 2x
1034	SOOTY TERN	1	SE		ad.
1035	" "	2	ce		ad hi.
SF 1040	" "	190±20	ce		ads. many high soaring to 5-600 ft.
	RFB	1	ce		ad int
1044	SOOTY TERN	4	ce		ad.
1055	" "	4	SE		ad.
B 1057	BFB	1	ce		imm following it is banded
SF 1100	SOOTY TERN	92±5	ce		ads swirling hi + traveling E
FF 1103	" "	170±20	ce		ad
	FRIG. SP	2	ce		CANTON VISIBLE 6-8 mi } feeding heavily
	GBT	3	ce		
	FAN TERN	2	ce		
	C. NOODY	1	ce		
	BFB	1	ce		
	WEDGETAIL	5	ce		all dark
1109	SOOTY TERN	4	S		ad.
1114	GBT	1	S		ad.
1115	SOOTY TERN	2	S		ad.
1116	" "	4	ce		ad.
1117	" "	4	ce		ad.
1118	GBT	3	ce		ad.
1119	WEDGETAIL	1	ce		ad. pt
1120	BFB	1	ce		ad.



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

08-1200 CHAN
12-1400 Fitch + Huber

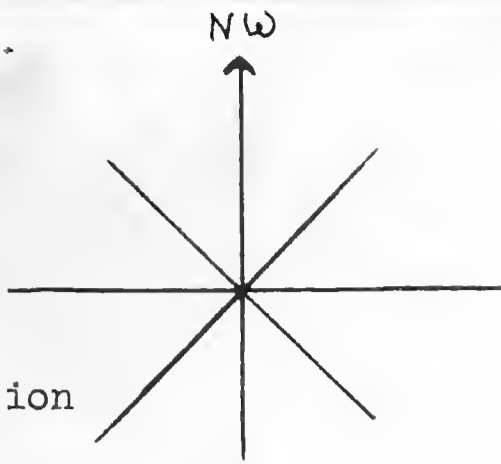
Date 7 DEC. 1966
Pg.# 3

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1121	SOOTY TERN	2	S		ad.
1123	RTTB	3	S		ads
1124	SOOTY TERN	4	ca		ads
1125	" "	4	ca		ads
SF 1126	" "	30	ca		ads, loose 1-2 miles off Canton I.
TF 1128	" "	12	S		ads.
TF 1131	FAIRY TERN	2	S		
	GBT	12	S		ads
	WINGTAIL	1	S		ad, nl
TF 1145	SOOTY TERN	6	W		ads, away from Canton
1150	GBT	1	S		ad.
TF 1152	GBT	5	E		ads
TF 1205	BB	3	NE		Ad
	Sooty tern	2	"		"
	Grayback tern	12	"		"
	C. Noddy	65	"		"
	Fairy tern	4	"		"
					travelling very scattered
1225	Sooty tern	2	SE		"
1225	BFB	1			Ad on H ₂ O. NAC
FF 1240	Fairy tern	8	ca		
	BB	5			Ad
	BFB	3			Ad
	B Frig	2			ad ♀
	Sooty tern	8			Ad
	Grayback tern	11			Ad.
	C. Noddy	52			Ad.
					feeding flock.
1243	Sooty Tern	2	ca		adult
1244	Gray back Tern	1	E		
1244	Common Noddy	1	E		
FF 1252	Grayback Tern	9	ca		
	Common Noddy	8			
	Sooty Tern	15			adults } Feeding flock
1254	Grayback Terns	3	NE		
1257	BFB BFB	1			sitting on H ₂ O, adult ♀
1334	Sooty tern	1	SW		Ad
1343	BFB	1	S		adult
	Sooty Tern	2	S		adult

PASSING CANTON
ON ITS SW SIDE
1-2 miles off



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

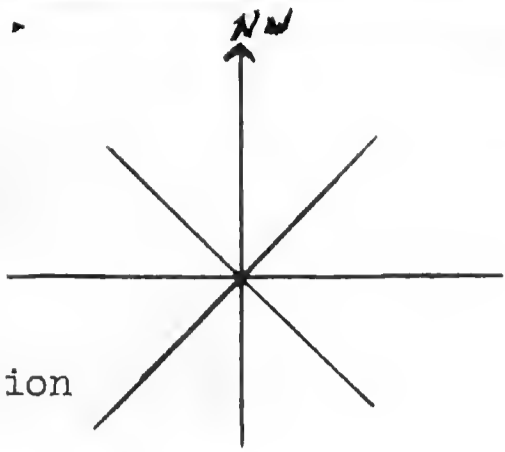
OBSERVERS:

12-1400 Fitch + Huber
1400-1600 Crossin & Balcomb

Date 7 Dec. 1966
Pg.# 4

SPECIMEN
OR

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF	1350	Sooty Tern	25	⊙		adult
		Pomarine Jaeger	1	⊙		immature (chasing Frigate)
		Great Frigate	1	⊙		♀
						} feeding flock
SF	1352	Sooty Tern	25	⊙		adult
		Great Frigate	7	⊙		
						} Swirling flock - not feeding
FF	1353	Sooty Tern	25	⊙		adults - feeding flock
SF	1400	" "	7	⊙		
FF	1405	" "	90	⊙		A ↓
		BFB	1	⊙		A ↓
		Frigate	3	⊙		A ↓
						} feeding
FF	1406	Sooty Tern	60	⊙		A ↓
		BB	3	⊙		A ↓
						} feeding flock.
	1407	Wedgetail	2	⊙		DP
		Audubon's sh.	1	SW		
SF	1410	BB	12	⊙		
	1411	Wedgetail	3	NE		dark phase
	1417	Sooty tern	1	E		
	1429	BFB	1	NW		
C	1445	Sooty tern	400	⊙	2611	Ad 1 coll. another shot but eaten by 5' shark.
FF		C Noddy	100	⊙		
		wedgetail	20	⊙		dk phase
		BFB	3	⊙		2 Ad, 1 imm
		Fairy tern	1			
	1500	Xmas-Is Sh.	1	N		
	1506	Wedgetail	1	⊙		dk phase
FF	1513	Sooty tern	100	⊙		Ad
		BFB	3	⊙		"
		Wedgetail	4	⊙		dk phase
SF	1530	Sooty tern	40	⊙		Ad
	1530	Aud Shear	2	⊙		
	1530	Wedgetail	1	E		dk. phase
FF	1540	Sooty tern	100	⊙	2612, 3121	Ad. 3 birds coll Sooty tern
FF	1550	" "	300	⊙		Ad - predator fish jumping
CCC		wedgetail	20	⊙		dk phase
		Frigate sp.	1	⊙		



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

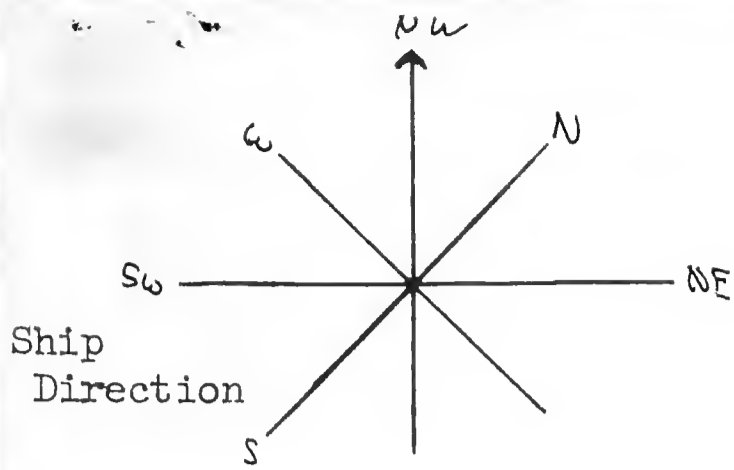
1600-SS TUX + CHAN

Date 7 DEC '66
Pg.# 5

SPECIMEN
or
NON-GRID

JOURNAL

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF 1628	SOOTY TERN	65±5	cea		ad } feeding tightly
	WEDGETAIL	20±3	ce		
SF 1640	SOOTY TERN	170±20	E		ad. hovering + stopping to feed occasionally
1620	SOOTY TERN	4	⊙		adults - attracted by school of porpoises
1700					ca 100 blunt snouted porpoise <i>FENESIO BREVICAUDA</i>
1705	NEW ZEALANDS.	1	ce		over porpoise wedgetail size light back white below tips of wings (outer 1/3 dark) tail dark "W" pattern across contrasting light back
FF 1750	SOOTY TERN	55±5	ce		ad
	L. FRIG	1	ce		ad ♀
	SHEAR/PET	1	ce		small Pterodroma?
PF 1800	SOOTY TERN	18±2	cea		ad
FF 1810	SOOTY TERN	23±2	ce		ad } feeding loosely
	FRIG. SP.	1	ce		
1812	LEACH'S SP	1	ce		
FF 1820	SOOTY TERN	120±15	ce		ad } feeding heavily
	WEDGETAIL	20±5	ce		
	BB	1	ce		
SF 1823	SOOTY TERN	7	ce		ad high - 200'
1828	WRSP	1	ce		
1830					SUNSET CLOSE OBS



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

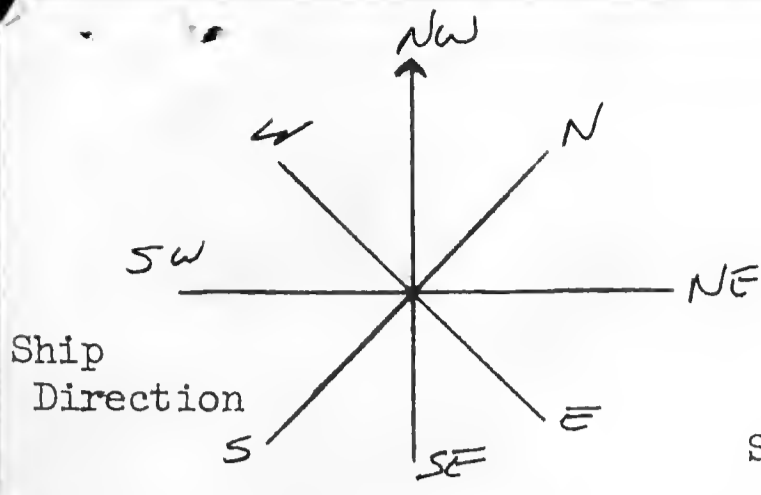
SR-0800 CHANE HEIDEN
0800-1000 - THOMPSON + TUX.
1000-1200 Fitch + Heiden
1200-1460 THOMPSON + Crossin

SPECIMEN
or
DIURNAL

Date 8 Dec. 1966
Pg. # 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0622					SUNRISE BEGIN OBS.
0623	SOOTY TERN	1	ce		ad.
0638	WRSP	1	cece		
0701	SOOTY TERN	1	S		ad.
0715	RTTB	1	N		
0715	SOOTY TERN	2	S		Ad.
0716	" "	1	SE		ad.
0720	" "	1	E		Ad.
0732	SOOTY/SB	1	SW		
0735					light underwing
0740	SOOTY TERN	4	ce		large fish jumping; no birds
0745					
0746	SOOTY TERN	3	S		550 porpoise - small - STENELLA? jumping
0750	" "	3	E		one or two seen spinning
0810	SOOTY TERN	2	E		Ad.
0824	" "	2	E		Ad.
0830	SOOTY TERN	2	E		Ad.
0903	" "	1	NE		Ad.
0910	SOOTY TERN	1	NW		Ad.
0910					E
0910					3 WHALES? ca 1275' - long gray-green - broad back
0935	SOOTY TERN	2	E		Ad.
TF 1017	SOOTY TERN	5	E		adult traveling block
1030	TAHITIAN/Ph. IS	1	NE		brown back
1042	SOOTY TERN	1	SE		adult
1045	SOOTY TERN	3	NE		adults
1107	WRSP	2			SITTING ON H2O
1112	" "	1			
1115	SOOTY TERN	2	W		Ad.
1124	SOOTY TERN	4	SW		adult
TF 1125	" "	8	W		Ad.
1207	SOOTY TERNS	3	E		Ad.
1215	SOOTY TERNS	2	S		Ad.
1225	SOOTY TERNS	2	SW		Ad.
1226	" "	1	E		
C 1227	Blue Gray Noddy	1	NE	2615	collected Crossin, R
1251	SOOTY TERNS	2	S		ad.
1255	" "	1	SW		ad.

Grid



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E


OBSERVERS:

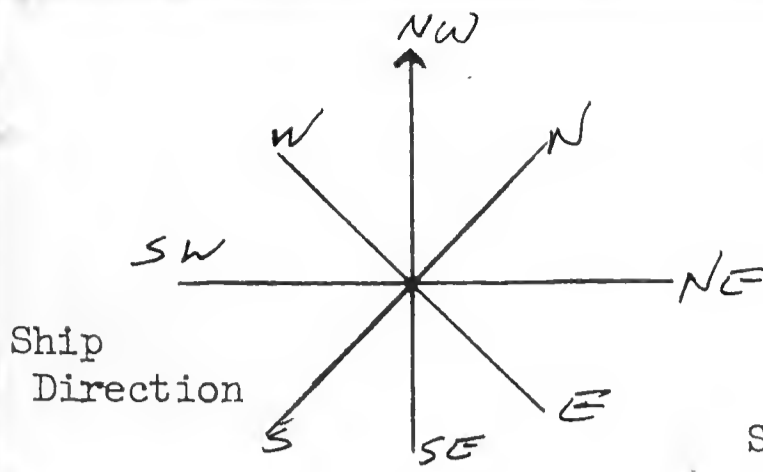
1200-1400 Thompson + Crossin
1400-1600 Tux - Huber
1600-1800 Fitch & Balcomb
1800-55 Thompson

Date 8 December 1966
Pg. # 2

SPECIMEN
or

Diurnal - GRID #2

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF	1325	Sooty Terns	150 ± 15	E		ads } feeding - large fish jumping
		Frigate sp.	8	E		
		Brown Booby	1	E		Imm. } feeding - large fish jumping
		Wedgetail	12	E		Dark phase }
SF	1339	Sooty Tern	1	E		
	1342	Sooty Terns	22	E		ad.
	1402	" "	2	ce		ads } searching flock
	1422					ad.
						Whale offport bow $\frac{3}{4}$ mi. - estimated length: 25-30ft, color: blue-gray, dorsal fin  , tail not seen.
	1431	Sooty Tern	2	⊙		adults.
FF	1440	Lesser Frig. sp.	2	⊙		2 ♂ } feeding
		Sooty Tern	85 ± 10	⊙		
	1515	Sooty tern	2	SW		Ad
	1524	WRSP	1	N		
	1542	WRSP	1	NE		
C	1546	RTTB	1	⊙		coll Huber 7616 subad.
	1607	Sooty tern	1	SW		Ad
	1632	Frigate sp.	1	⊙		dove from ca 150' to ca 5'
	1720	BBB	1	N		ad
SF	1722	Sooty Tern	9	ce		age not discernable
	1745	Sooty Tern	2	⊙		Ad.
	1820					cetacean - ca. 15-20' long, blunt snout, grayish brown color only 1 animal seen breaching several times and landing on side. Ashton saw 3.
	1824	Wedgetail	1	N		
FF	1830	Sooty Terns	35 ± 5			dk. phase.
		Common Noddy	12			
	1840	Wedgetail	6			dk phase
		RTTB	1	E		
	1841					Sunset, closed observations



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG -- E

OBSERVERS:

55-2100 Thompson

2100-2400 Crossin

0200-0300 Chan

0300-0600 Hube

0600 - SR. Chang & Balc.

Date 8⁹ December 1966

Pg.# 1

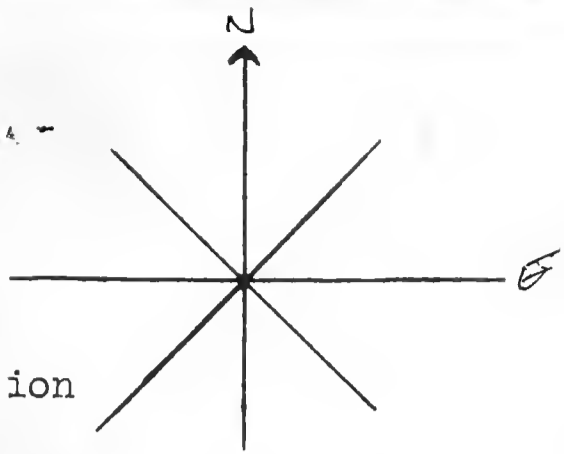
SPECIMEN
or

Nocturnal - Grid
SE #2

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1841					opened observations, sunset
1940	Sooty Terns	2+	SE?		calling - at least two, sounded like more
1956	Sooty Terns	4+	SE		Flying high
2001	Sooty Tern	1	?		calling - no seen flying high over the ship - at
2019	Sooty Terns	2+	SE		least two more hear calling -
2021	Sooty Tern	1	SE		calling
2024	Sooty Tern	1	SE		one calling - one or more calling - one other seen -
2032	BFTS ?	1	?		Flying high again over ship
2056	Sooty Terns	2+	S		calling and seen - low on starboard side
2100	Sooty tern	1	?		one large white bird seen - slow flight
2115	" "	3+	?		most likely adult + BFTS
2120	" "	2	SE		calling - ad.
2121	" "	1	E		" ad
2123	" "	2	E		ad, calling + seen.
2135	" "	1	E		one call - ad.
2148	" "	1	E		ad call.
2152	" "	1	SE		ad calling.
2210	" "	1	E		calling ad.
2215	" "	1	E		" "
2245	" "	2	SE		calling, ad.
2250	" "	1	E		ad.
2258	" "	1	E		ad.
2310	" "	1	SE		ad calling.
2318	" "	3+	SE		ad
2330	WRSP	1	SE		ad's calling - rain squall passing over.
2355	Sooty Tern	1	SE		flying about ship's lights.
0020	" "	2	SE		ad.
0022	" "	1	E		ad
0405	" "	2	?		ad calling
0435	" "	2	?		ad "
0505	" "	1	?		" "
0635					" "

Sunrise shut night observations.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

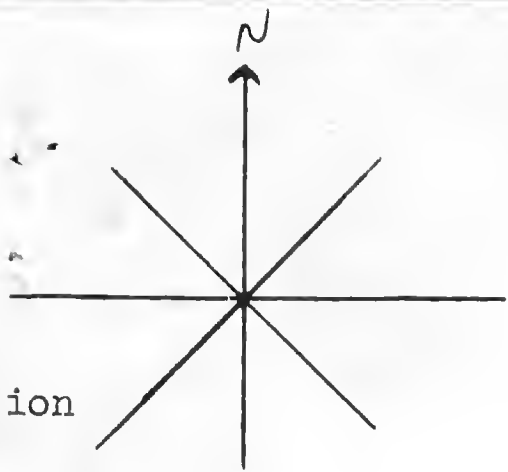
Chap. & Balcomb SR-0800
08-1000 Eick + Heiden
1006-1200 Thompson
1100 Crossin
1220 - 1400 Taxson & Balcomb

Date 9 DECEMBER, 1966
Pg. # 1

SPECIMEN
or

Ship
Direction

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	0635					diurnal watch commences
	0637	Wedgetail	1	☉		dark phase.
	0645	WRSP	2	☉		
	0645					
	0655	Bulwers/WRSP	1	E		change course to East - oops! changed back again.
	0655	Wedgetail	1	SE		identification wondrous
	0655	WRSP	1	☉		light phase
	0700	Wedgetail	1	N		dark phase.
FF	0815	SOOTY TERN	70	☉		} feeding
		FAIRY TERN	3	☉		
		WEDGE TAIL	5	☉		
	0825	L. Frigate	2	☉		
	0840	WRSP	1	☉		♀
TP	0841			☉		
	0847	Sooty/Slender-bill	1	☉		2 GREEN DRAGONS OR WINGED SEA SNAKES PLAYING DOCKEY in addition to 5 Giant Purple Sea Lizards displaying allometric behavior off starboard bow (TRAVELING PRIDE)
	0848	WEDGE TAIL	1	☉		
	0900	Wedgetail	1	E		dark phase
	0906	WRSP	1	☉		dark phase
	0926	SOOTY TERN	4	☉		
	0926					Ad
FF	0935	Sooty Tern	90	☉		PILOT WHALES (APP. 35) } feeding
		Frigate sp.	2	☉		
		WEDGE TAIL	11	☉		
FF	0942	Sooty Tern	55	☉		} feeding
		Fairy Tern	5	☉		
		Wedgetail	8			dark phase
		Pterodroma sp.	1			breast: white, throat: white, dark brown to black cap, brown to gray upper wings } feeding adult, intermediate phase
		Red-foot Booby	1			
	1000	Sooty Tern	1	N		
	1001	"	2	W		adult
	1102	BTC	1	E		Ad
	1115	2 FTB	1	E		calling - in sight of BAKER Island - ? 10 miles + following ship - Ad.
	1120	BFB	1	N		ad - toward Baker
	1125	sooty tern	1	S		ad.
	1150	BFB	1	☉		imm.
	1200					stop watch Baker
	1220					commence watch leaving Baker
	1245	WRSP	4	N		
	1300	RTTB	1	☉		not banded.
TF	1358	Sooty tern	6	E		Ad.



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

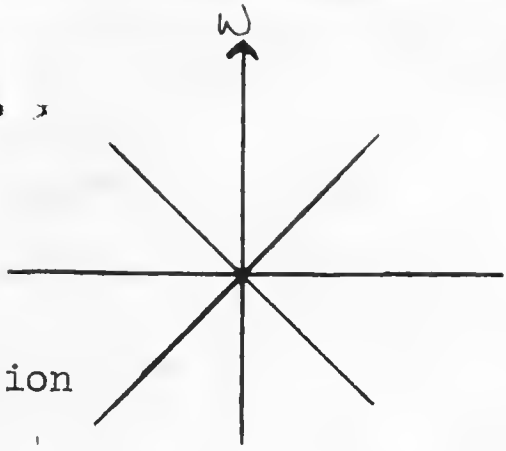
14-16 - Char Ober

Date 9 Dec 1966

Pg.# 2

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1421	Shear/pet	1	NW		possibly wedge
	1440	SOOTY TERN	4	SE		ads
	1453	WRSP	3	ce		feeding
	1504	BFB	2	ce		imm. following
SF	1510	SOOTY TERN	16 ± 2	ce		ad.
		FRIG SP.	2	ce		
		BFB	2	E		1 ad 1 imm
SF	1514	SOOTY TERN	15	⊙		searching flock
TF	1516	" "	30	E		ads
		BFB	1			ad
BS	1517	BFB	3	ce		imm 1 is blue-streamered
TF	1520	" "	7	N		ad.
	1527	RTTB	1	ce		Howland visible
TF	1533	SOOTY TERN	10	S		ad.
SF	1535	" "	110 ± 10	ce		ads
		FRIG. SP.	2			
	1536					CLOSE OBS. HOWLAND 5 mi.
	1750			W		opens obs. Howland 3 mi.
TF	1751	Sooty tern	225	E		ad. all moving toward Howland 3 imm, 1 ad.
		BFB	4			
		Frig S.	11			
FF	1754	Sooty tern	30		ad.	Feeding
		RFB	1		imm.	
		Frig sp.	2			
TF	1756	BFB	12			all ad, moving hard & fast toward Howland
FF	1758	sooty tern	50 ± 5			far out.
		Frig sp.	2			
	1759	BFB	3	E		ad.
TF	1801	sooty tern	25 ± 3	N		way out.
TF	1803	" "	15	E		ad.
FF	1807	" "	30	N		Feeding traveling flocks ad sooty terns, 1 imm. began feeding over jumping tuna. Terns racing madly back & forth - too close to ship for frigate to engage.
		Frig sp.	2			



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Crossin 1850-2100

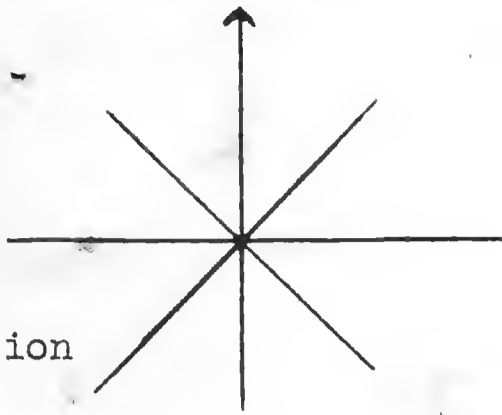
Date 9 Dec 66

Pg.# 3

SPECIMEN
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1812	Sooty Tern	4	N		far out
	1812	Frigate sp.	1	E		"
	1814	sooty tern	3	N		"
	1815	" "	4	N		ad's - fast direct flight - low over H ₂ O.
TF	1817	" "	8	N		"
FF	1817	sooty tern	30±3			"
		Frigate sp.	1			feeding off to SW - far out.
TF	1821	sooty tern	18	N		ad's.
	1825	" "	1	N		ad.
	1826	" "	3	N		ad's.
	1826	" "	1	E		ad.
	1827	" "	3	E		1 imm, 2 ad's.
	1830	RFB	1	E		1 imm, Int. phase
	1830	RTTB	1	E		ad.
	1830	Ruddy Turnstone	1			
	1835	sooty tern	2	N		ad.
	1835	Frig sp.	2	SE		
	1837	sooty tern	2	N		ad.
TF	1840	" "	14			
		Frig sp.	4	N		
	1843					Sunset. End diurnal obs.

Drifting



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SS-2100 Crossin

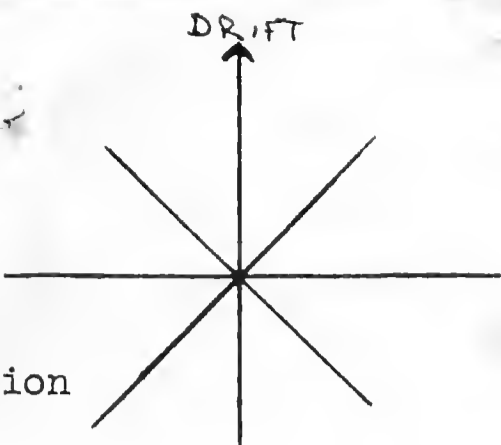
SPECIMEN
or

Nocturnal - Gnid

Date 9-10 Dec 66

Pg.# 1

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
	1843					sunset - begin nocturnal - begin drifting ca. 13
	1844	sooty tern	2	E		ad. miles W of Howland.
	1844	" "	2	N		ad.
	1853	BFB	8	NE		ad.
	1900	BFB	10	ce		circling, but heading generally E.
	1915	Frigate sp	1	E		passed over ships.
CB	1930	RFB	1	ce	coll. RSC	Banded - 747-59002 - Field # 2617
	1933	sooty tern	2	E		ad.
C	1935	" "	1	E		ad. coll. RSC. 2618
CC	1945	" "	3	E		ad. 2 coll. RSC 2619 + 2620
CC	1955	" "	3	E		ad. 2 coll. RSC 2621 + 2622
	1958	" "	1	E		ad.
TF	2000	" "	5	E		ad.
	2001	" "	3	E		ad.
	2003	" "	1	E		ad.
TF	2010	" "	4	E		ad.
	2020	" "	3	ce		ad by call.
	2025	" "	3	E		coll. ad.
	2028	" "	2	E		ad.
TF	2032	" "	7	E		ad.
	2035	" "	3	E		ad.
	2036	" "	3	E		coll. ad.
	2040	" "	1	E		ad.
	2045	" "	3	E		ad.
TF	2046	" "	1	E		ad.
C	2050	" "	5	E		ad. one coll. RSC 2623 banded 953-01140
	2055	" "	1	E		ad.
	2056	RFB	1	ce		
C	2058	SOOTY TERN	1	E		ad. coll. RSC 2624
	2058	" "	4	E		ad.
	2100	" "	1	E		ad. coll. RSC #2625
C	2101	LESS. FRIGATE	1	E		ad. coll. RH 2626 (calling)
C	2105	SOOTY TERN	1	E		ad. calling
	2110	" "	6	E		ad. calling
	2115	" "	6	E		ad.
C	2125	SOOTY TERN	4	E		ad. one coll. RH 2627 calling
C	2128	" "	5	E		ad. one coll. RH 2628 calling
C	2130	" "	3	E		ad. one coll. RH. 2629 calling
	2135	" "	4	E		ad. calling
	2140	" "	6	E		ad. "
C	2145	" "	8	E		ad. coll. RH 2630 calling
	2200	" "	6	E		ad. calling
	2210	" "	4	E		ad. calling
	2214	" "	6	E		ad. calling
C	2220	" "	8	E		ad. calling one coll. R.H. 2631
	2225	" "	6	E		" "
CC	2226	" "	4	E		" 2 coll. R.H. 2632 + 2633
C	2230	" "	4	E		" 1 coll. R.H. 2634



OBSERVERS:

21-24 HEIDEN

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

Date 9-10 Dec. 1966

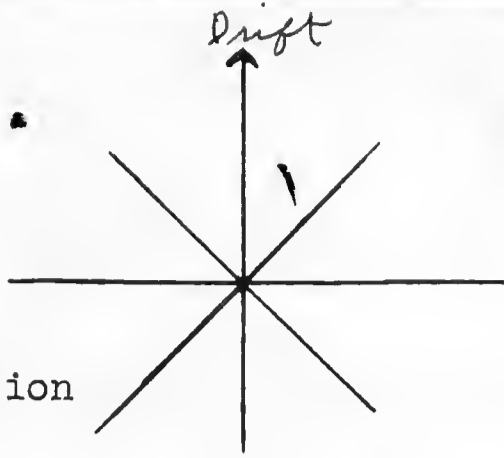
Pg. # 2

SPECIMEN NOCTURNAL GRID
or

Ship Direction

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
2230	SOOTY TERN	6	E		ad. calling
2235	" "	8	E		" "
2240	" "	6	E		" "
2245	" "	8	E		" "
2250	" "	8	E		" "
2255	" "	10	E		" "
2257	" "	4	E		" "
2259	" "	10	E		" "
C 2304	" "	3	E		" " one coll. R.H. 2635
C 2305	" "	3	E		" " one coll R.H. 2636
2307	" "	15	E		" "
BC 2313	" "	4	E		" " one coll. R.H. 2637 Banded 793-72680
2315	" "	3	E		" "
2320	" "	2	E		" "
2323	" "	3	E		" "
2325	" "	2	E		" "
2330	" "	2	E		" "
2336	" "	3	E		" "
2340	" "	3	E		" "
2344	" "	4	E		" "
2350	" "	3	E		" "
2355	" "	2	E		" "
C 2358	" "	12	E		" " one coll R.H. 2638
0020	" "	3	E		" "
0025	" "	2	E		" "
0030	" "	3	E		" "
0035	" "	3	E		" "
0038	" "	2	E		" "
TFC 0040	" "	12	E		" " 1 coll. RSC. 2639
TF 0045	" "	9	E		" "
0046	Frigate sp.	2	E		
0052	Sooty tern	3	E		ad - calling
0053	" "	1	E		" "
CCC 0100	" "	4	E		" " 3 coll. RSC. 2640, 2641, 2642
0103	" "	3	E		" "
C 0110	" "	10	E		" " 1 coll RSC 2643
0115	" "	1	E		" "
0117	" "	3	E		" "
0122	" "	7	E		" "
0134	" "	4	E		" "
0136	" "	2	E		" "
0140	" "	7	E		" "
0145	" "	3	E		" "
BS 0150	" "	2	E		" " 1 coll RSC Banded + Blue streamer 2644 863-80697
0155	" "	9	E		" " coll RSC 2645
C 0158	" "	1	E		" "



OBSERVERS:

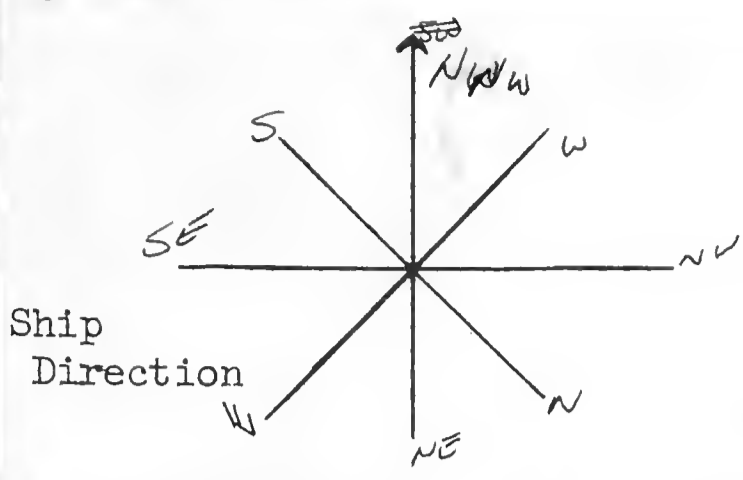
2400 - 0300 *Crossin*
 0300 - 0600 HEIDEN

SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

SPECIMEN NOCTURNAL GRID
 or

Date 9-10 Dec 66
 Pg.# 3

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0200	sooty tern	7	E		ad. calling.
0203	" "	9	E		" "
0206	" "	4	E		" "
0209	" "	4	E		" "
0215	" "	7	E		" "
0220	" "	2	E		" "
0224	" "	3	E		" "
0227	" "	6	E		" "
0234	" "	11	E		" "
0236	" "	2	E		" "
0239	" "	3	E		" "
0245	" "	7	E		" "
0246	" "	6	E		" "
0247	C. noddy	1	E		coll. RSC 2646
0250	WRSD	1	ce		STOP DRIFTING; E
0315	SOOTY TERN	3	E		ad. calling
0317	" "	1	E		" "
0328	" "	1	E		" "
0340	" "	2	E		" "
0340	" "	1	E		" "
0359	" "	1	E		ad.
0420	" "	1	E		" "
0445	" "	4	E		" "
0457	" "	1	E		" "
0515	" "	3	E		" "
0525	" "	1	E		ad. calling
0527	" "	1	E		" "
0600	" "	1	E		ad.
0607	" "	2	E		ad.
0607	LESS FRIG.	1	E		♂
0607	BFB	1	E		1 imm.
0615	SOOTY TERN	2	E		ad. calling
0620					2 miles off HOWLAND; close observations



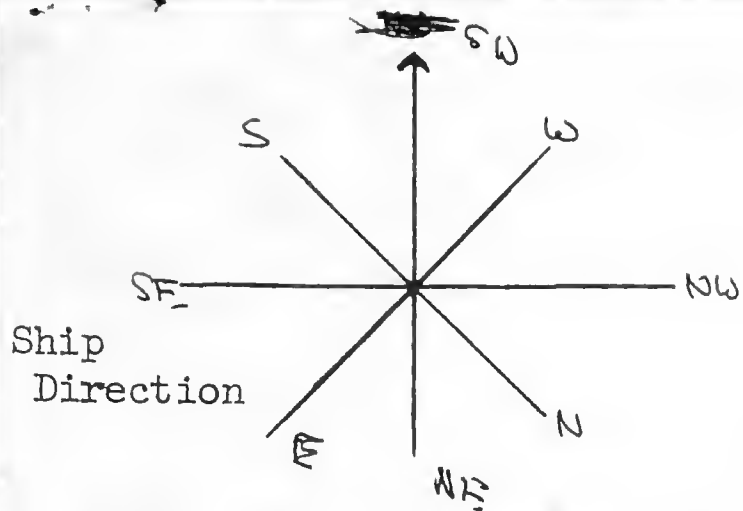
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:
0800-1100 Thompson

Date 10 December 1966
Pg. # 1

SPECIMEN or DIURNAL GLID # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
9:00 → 0811	BFB	15	☉		BEGIN OBS LEAVING HOWLAND ISL.
0820	BB	2	☉		following ship, 7 blue streamer - all Immatures } Hourly Count
SF 0830	Frigate sp	8	☉		following ship, 1 Ad, 1 Imm
TK 0831	Sooty Terns	7	NE		circling high up. - searching?
0835	BFB	2	S		Traveling - Ads
FF 0843	Sooty Terns	45±5	☉		Ads. } feeding -
	BFB	6	☉		Imm }
	TBTB	2	☉		Imm } dove
	Frigate, lesser?	1	☉		♀?
0859	BFB	1	N		Imm.
13S → 0911	BFB	4	☉		following ship - all Imm, 1 blue streamer } Hourly Count
	BB	1	☉		" " Imm.
0912	RITB	1	N		ad.
0916	Sooty Tern	1	E		ad.
0935	Sooty Tern	1	E		ad.
TF 0941	Sooty Tern	9	NE		ads - Traveling
SF 0944	Sooty Terns	90±10	☉		ads - searching?
SF 0945	Frigate sp.	8	☉		ads - ? searching
	Sooty Terns	25±4	☉		ads - ? searching
0946	Frigate sp.	1	E		
0948	Frigate sp	1	SE		
SF 1001	Sooty Terns	15±1	E		ads. searching?
1035	Sooty Terns	2	S		ads
1050	Sooty Terns	2	S		ads
1055	TBTB	1	E		ad.
TK 1115	Frigate (lesser)	2	SE		ad. terns, 3 imm, 1 ad ♂ Frig.
	Sooty Tern	14	SE		
TF 1130	sooty terns	13			ad. } moving N.
	Frigate Lesser	7			5 imm, 2 ad ♂
	Wedgetail	2			dark phase.
1142	Frig. sp.	1	☉		ad.
TF 1154	Sooty Tern	50±3	N		traveling, strung out - flock far out. (1000 now closer, actual count 51 terns)
	Frigate sp.	3			
	Wedgetail	3			dark phase
FF 1205	Sooty Terns	15	☉		ad.
	Frigate sp.	5			
1210	Sooty Terns	2	E		ads.
1211	Sooty Terns	1	E		
1244	Wilson's SP	2	☉		swift, erratic flight, often backtracking, long legs dangling - prominent white rump.
FF 1250	sooty tern	20			1 subad. coll. 2647 tsc rest ad's.
C	Lesser Frig	2			ad ♀, ad ♂
	wedge tail	2			1 dark phase, 1 light phase
	WRSD	2			
1330	Sooty Terns	3	NW		adults
1334	Sooty Tern	1	☉		adult
1347	Sooty Tern	1	NW		distant
TF 1410	Sooty Tern	7	SE		adults - traveling
FF 1416	Sooty Tern	14			1 subadult, 13 adults } feeding flock
	Wedgetail	10			dark phase



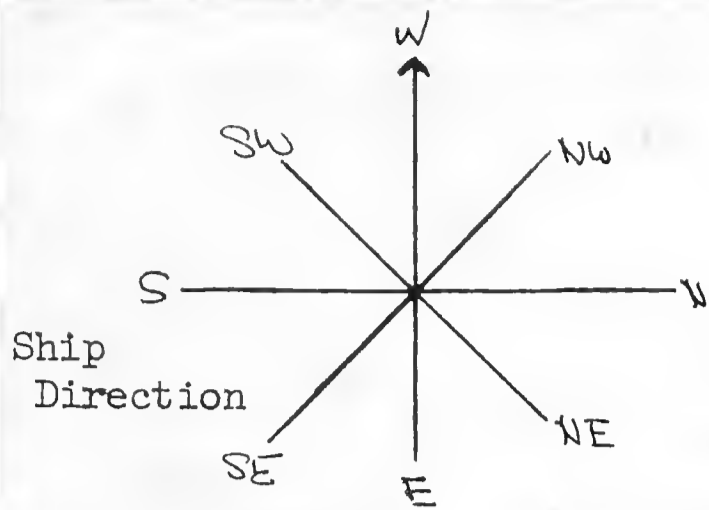
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E
SOUTHERN GRID
SPECIMEN
or

OBSERVERS:

1330-1630 Fitch
1800-55 Collins

Date 10 December
Pg. # 2

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS	
FF	1435	Sooty Tern	56	⊙		3 subadults	
		Frigate sp.	2	⊙		} feeding flock	
		Wedgetail	23	⊙			dark phase
		WRSP	1	⊙			
FF	1459	Sooty Tern	18	⊙		Adults	
		Wedgetail	5	⊙		dark phase	
		Frigate Lesser	3	⊙		1 ♂, 2 ♀	
	1521	Sooty Tern	2				
	1535	Sooty Tern	3	SE		seen on horizon	
	1537	Sooty Tern	2	E		adults	
	1538	Sooty	1	S		adults	
	1554	BWP	1	SSW		adult	
	1600	Sooty Tern	1	S			
	1601	Sooty Tern	3	NNE		adult	
	1604	Wedgetail	1	S		adults	
	1615	Wedgetail	1	⊙		dark phase	
	1621	Sooty Tern	1	NW		dark phase	
	1625	RTTB	6	W		adults - out distanced ship	
C	1635	Ruddy Turnstone	1	⊙		collected by T.H. Fitch (field # 2648, band no. 625-87418)	
	1722	Wedgetail	1	ce		circling ship	
	1727	Sooty Tern	2	W		dark phase	
TF	1733	" "	2	NW		adults	
	1739	WRSP	5	N		disturb	
	1800	WRSP	1	ce			
	1818	" "	1	ce		flew like Wilson's	
	1830	Sooty Tern	1	SE			
	1846		2	ce		ad. sunset - end diurnal watch.	



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

55-2100 Crossin
2100-0000 Heiden
0000-0600 Thompson
0300-0600 Chandler
0600-0642 Fitch

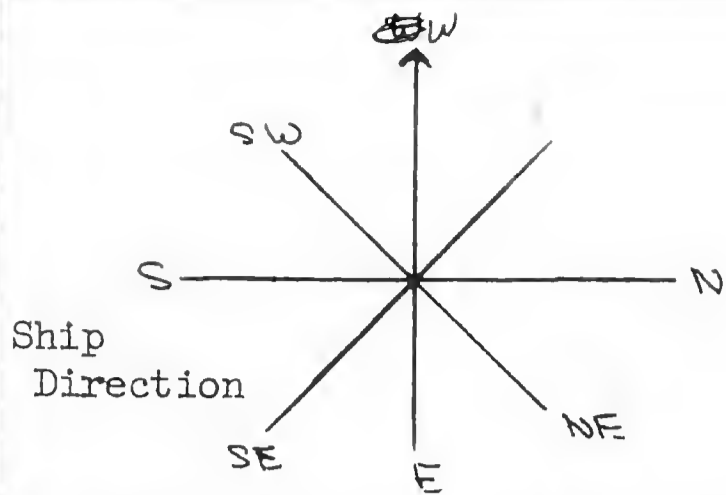
Date 10-11 Dec. 1966
Pg. # 1

SPECIMEN
or

Nocturnal - Grid

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1846					sunset - begin nocturnal watch
2000	Audubon's Shear	1	ce		newly collided with ship - flew off to N.
2050	WRSP	1	ce		fluttering about ship's lights, apparently confused.
1031	SHEAR/PET	1	ce		laugh
1059	SOOTY TERN	1	ce		
0028	Audubon's Shearwater	1	ce		flying around the ship a couple at times
0035	Sooty Terns	2	ce		- strike wing type of flight -
0104	SHEAR/PET	1	ce		calling - 2+
0325	SOOTY TERN	1	ce		medium
0353	" "	1	NE		ad.
0355	" "	1	S		ad.
0400	" "	1	?		ad calling
0408	" "	2	?		ads calling
0430	" "	1	NE		ad.
0435	" "	2	W		1 ad 1 imm calling
0545	" "	1	SW		ad.
0559	Russet TERN?	1	ce		circled ship a shoreward just this spec.
0615	Sooty Tern	1	ce		adult
0638	Sooty Tern	1	NE		ad.
0642					Sunrise



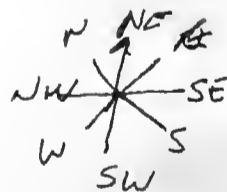
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E
DIURNAL GRID

OBSERVERS:

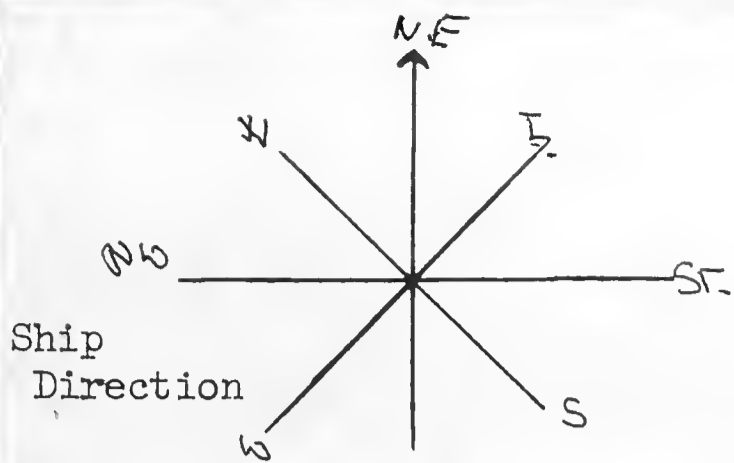
0642-0900 Fitch
0900-1200 Crossin
1200-1500 HEIDEN
1500-1800 Thompson

Date 11 December 1966
Pg. # 1

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS	
	0642					Sunrise	
	0658	Phoenix Isl./ Tahitian Petrel	1	E			
TF	0715	Sooty Tern	13	S		adults, traveling flock	
	0735	Pomarine Jaeger	1	N			
TF	0834	Sooty Tern	12	N		adults - traveling flock	
	0837	Wedgetail	1				
	0910	WRSP	1 1	WN		dark phase	
	0918	"	1	S		appeared to be Leach's.	
TF	0955	Sooty Tern	10	E		all ad's.	
	1015	WRSP	1	S		far out.	
	1020	Sooty Tern	2	E		1 Imm, 1 ad.	
	1240	WEDGETAIL	2	W		DARK PH.	
	1325	POM. JAEGER	1	S			
FF	1330	SOOTY TERN	15			} feeding	
		GRAY-BACK. TERN	3				13 ad., 2 Imm.
		COMMON NOD.	1				
		WRSP	1				
	1338	WEDGETAIL	1	⊙		DARK PH.	
	1342	"	1	⊙		" "	
	1355	SOOTY TERN	1	S		ad.	
	1430	WEDGETAIL	1			sitting on H2O	
FF	1530	Sooty Terns	25 ± 2	⊙		changed course to NW	
SF	1542	Sooty Terns	40 ± 5	N		3 Imm, rest Ads. Feeding?	
TF	1553	Sooty Terns	17	SE		Most ads - searching	
	1615	Audubon's Shearwater	1	⊙		all ads. Traveling	
	1810	Fairy Tern	2	⊙		feeding	
	1820	Bulwer's	1	⊙		maybe	
	1830	RTTB	1	⊙		following	
	1850					SUNSET CLOSE DIURNAL OBS.	



1935



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E
NOCTURNAL GRID

SPECIMEN
or

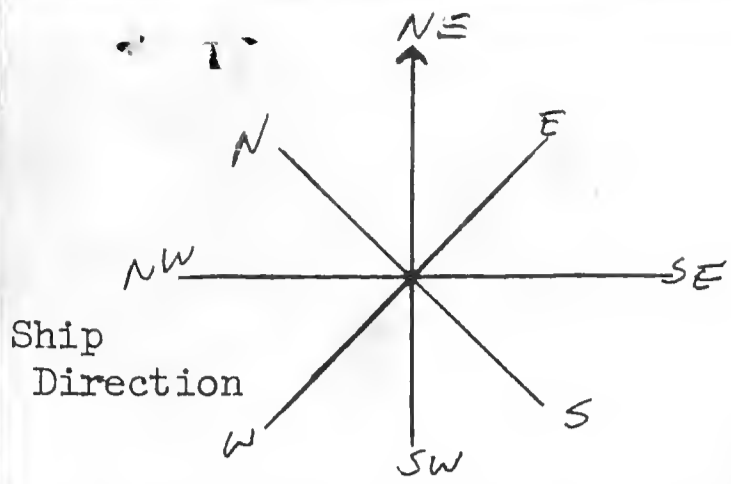
OBSERVERS:

SS-2100 CHAN
2120-2400 Fitch

Date 11-12 DEC. 1966
Pg.# 1

TIME SPECIES # DIR. BAND NO. REMARKS

1850					SUNSET BEGIN NOCT. WATCH
1915	BB	1	W		imm. following - tried to land on ship
2207	Sooty Tern	1	SE		adult
2235	Sooty Tern	1	⊙		heard - not seen
2313	" "	1	⊙		adult
0337	" "	1	⊙		Ad.
0500	" "	1			"
0545	" "	2			"
0550	" "	1	E		"
0637					sunrise



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

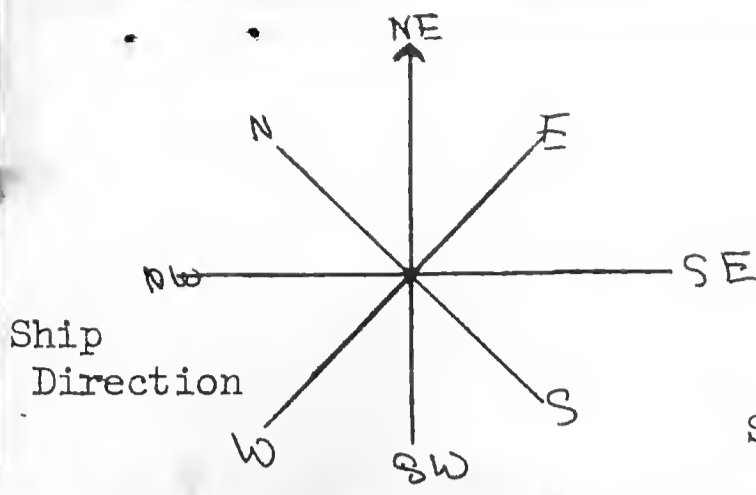
OBSERVERS:

5A-0710 - Thompson
0900 - 1030 Crossin
11-1200 CHAN
12- Fitch

Date 12 December 1966
Pg. # 1

SPECIMEN or DRAWING GRID # 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0637					SRvic open observations (6:37?)
0715	WRSP	1	NW		
0728	Frigate sp.	2	N		
FK 0730	Frigate sp.	3			
	Sooty Terns	5+	CE		Feeding flock - too distant to accurate count or tell type of activity.
SF 0748	SOOTY TERN	5	CE		
0750	BFB	1	CE		ads
0752	WRSP	1	CE		ad.
0753	SOOTY TERN	1	W		ad.
0803					
0825	RTTB	1	NO		Physoter ? couple dozen blows seen from one? least. puffy, into wind perhaps projecting forward, but hard to say 10-12' high, animal not seen - CHAN
0831	Sooty Terns	3	W		ads
0845	Sooty Terns	3	NE		ads.
0855	JFTS	1	NO		ad.
1027	sooty tern	1	SE		ad.
1028	" "	1	SW		ad.
1030	" "	1	SW		ad.
1030					close observations for below 1/2 miles ahead.
1100					
1130	SOOTY TERN	2	SW		BANKER MILL POND 2 miles ASTERN RESUME OBS.
TF 1140	" "	23	E		ad.
RF 1142	" "	25	CE		all ads.
1143	BFB	1	CE		ads
TF 1144	SOOTY TERN	9	CE		imm following
TF 1158	" "	30 ± 3	E		ads
	FRIG. SP.	1	SE		disturb
SF 1202	SOOTY TERN	40 ± 5	SE		ads
BP	BFB	1	CE		ad blue point (fresh)
	FRIG. SP	1	CE		subad.
1203	SOOTY TERN	4	SW		ad.
1204	BFB	1	S		ad.
1206	LEACH'S SP	1	CE		
1218	Lesser Frigate	3	⊙		2 ♀, 1 ♂ circling ship
1235	BB	1	SE		adult
FF 12412	Sooty Tern	33			
	Frigate sp.	3			
FF 1246	Sooty Tern	7	⊙		all adults (1 collected # by J. H. Fitch)
	BFB	3	⊙		2 adults, 1 blue streamered immature w blue point
	Frigate sp.	2	⊙		immature blue streamered, still circling ship w. blue point
1303	BFB	1			



Ship Direction

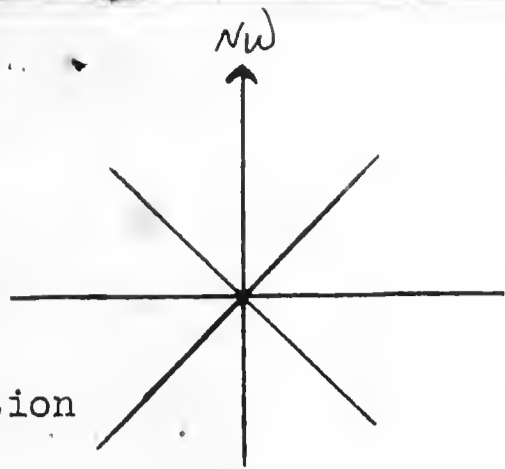
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E
DIURNAL GRID
SPECIMEN
or

OBSERVERS:

Crossin 16-1800

Date 12 December 1966
Pg.# 2

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS	
	1306	BFB	1	NE		adult	
FF	1311	Sooty Tern	18	⊙		} Feeding flock	
		BFB	1	⊙			adult
	1312 1313	Frigate sp	2	⊙		circling high in air	
	1317	BFB	1	⊙		circling ship - immature w. blue streamer (no blue paint)	
	1325	BFB	1	SW		adult	
	1329	BFB	4	⊙		4 immatures (1 first spotted at 1317 is blue streamer), 2 others w blue paint and blue streamer	
		BB	1	⊙			adult
	1330	BFB	7	NE		6 adults, 1 immature	
	1335	BFB	1	⊙		immature individual w. blue streamer and blue paint seen catching flying fish (booby dived into water where flying fish hit water 1/2 second previously)	
TF	1344	Sooty Tern	1	NE		adult	
	1349	Sooty Tern	1	SE		adult	
		BFB	2	SE		} Traveling flock	
		BB	1	SE			1 immature, 2 adult
TF	1358	Sooty Tern	18	⊙			
		BFB	1				
TF C	1402	Sooty Tern	10	⊙		1 collected J.H. Fitch # 2650	
FF	1404	BFB	8	⊙		2 immatures, 6 adults feeding flock	
TF	1408	Sooty Terns	15	SW		13 adults, 2 immatures traveling flock	
	1412	Blue-gray Noddy	1	⊙			
TF	1414	Sooty Terns	10	W		adults traveling flock	
TF	1416	Sooty Terns	5	SW		adults	
	1418	BFB	3	⊙		adults	
	1422	BB	1	⊙		adult	
	1433	BFB	3	⊙		immatures w blue paint and streamers within 4 miles of Howland Island (closer observations)	
	1600					Howland Island - 1 mile - begin obs.	
TF	1603	Sooty Terns	200			} scattered over wide area - all ad's.	
		BFB	7				imm.
		RFB	1				imm - int phase.
		Lesser Frig.	5				2 imm., 2 ad ♂, 1 ad ♀.
TF	1608	Sooty Tern	50			} ad's	
		BFB	1	NE			ad.
TF	1615	Sooty Tern	30	}		} Toward Howland.	
		RFB	1				
		BFB	1				



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

16-1800 Crossin

18-21 HEIDEN

Date 12 December 1961

Pg.# 3

Ship
Direction

SPECIMEN
OR

TIME SPECIES # DIR. BAND NO. REMARKS

	1620				2 large whales >30ft.	
FF	1620	Sooty Tern	200			
		BFB	5		wing out.	
		Frig sp.	7			
TF	1634	Sooty Tern	15	SE	ad's.	
	1636	BFB	4	S	ad's.	
	1640	BFB	3	S	2 ad, 1 imm	
TF	1643	Sooty Tern	50	S	all ad.	
		BFB	3			
	1645	Frig sp.	1			
		BFB	1		ad.	
TF	1650	Sooty Tern	27			
		BFB	2	ad E	stung out.	
FF	1652	Sooty Tern	250	SE	all sooties seen were ad's. flock stung out. traveling slow. occasional heavy feeding 1 ad sooty in blue streamer	
BS		Frig sp.	14			
		WRSP	3	ad		
		BB	1	ad		
	1700	BFB	1	S	ad.	
BP	1705	"	1	S	ad.	
	1710	"	2	SE	ad.	
TF	1712	SOOTY TERN	4053	SE	ad.	
	1718	PI/T P	1	ad		
	1730	BFB	1	S	ad.	
	1730	Sooty Tern	3	S	ad's.	
	1731	wedgetail	1	N	dark phase	
	1732	BFB	1	S	ad.	
	1741	BFB	4	S	3 ad, 1 imm.	
TF	1745	Sooty Tern	5	S	all ad.	
	1826				sunset; close diurnal observations	

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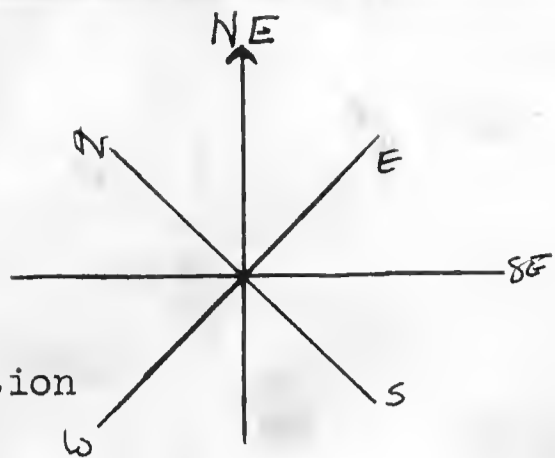
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Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

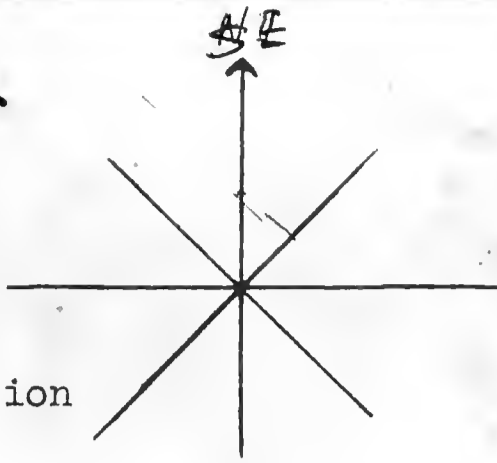
18-2100 HEIDEN
21-2400
24-0300
03-0600 Fitch

Date 12-13 DEC-1966
Pg.# 1

SPECIMEN or NOCTURNAL GRID

TIME SPECIES # DIR. BAND NO. REMARKS

1826					SUNSET; BEGIN OBS.
1915	WRSP	1	(O)		
2000					RAIN SQUALL
2010	TROPIC BIRD SP	1			following ship
2020					end of rain squall
2044	WRSP	1			caromed off bridge
2115	Sooty Tern?	1	SW		
2125	" "	1	SW		calling
2135	Tern sp.	1	NE		
2137	" "	1	NE		
2140	Sooty Tern	1+	(O)		GBT/Sooty
2146	" "	1+	?		calling
2235	GBT	1	?		calling
2301	Sooty Tern	1	(O)		calling
			"		calling
0315	Sooty Tern	1	(O)		adult
0335	Sooty Tern	1	?		calling
0414	Sooty Tern	2	W		adults
0448	" "	1	?		calling
0501	" "	3	W		adults
0508	" "	2	(O)		adults
0528	" "	2+	SW		calling
0535	Tropicbird sp	1	(O)		circling ship
0542	Sooty Tern	2+	SW		calling
0636					sunrise close nocturnal



Ship Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

0600 - 0800 Healy
0800 - 1200 Thompson + CHAN

SPECIMEN
or

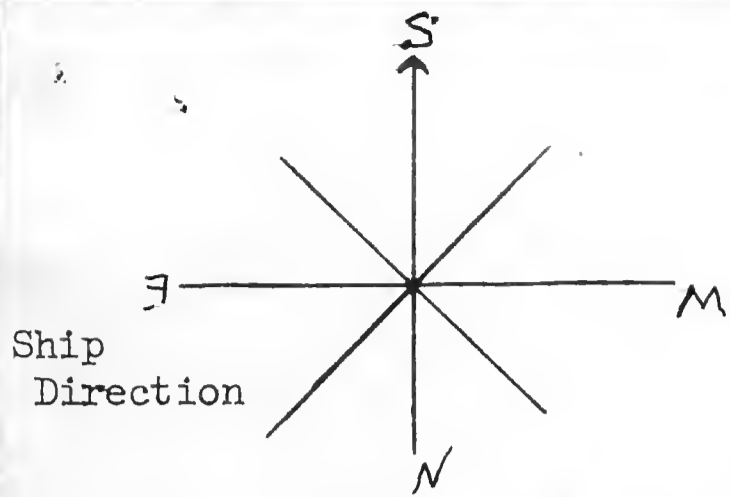
Field Journal

Date 13 Dec 1966
Pg.# 1

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0636					sunrise begin diurnal watch
0645	RFB	1	E		Ad intermediate
0714	P. jagorowskii	1	NE		looked too large for P. jagor
TF 0717	BFB	5	NE		3 ad 2 imm
0719	BFB	4	E		Ad
0720	BFB	1	E		Ad
BS 0721	BFB	1	E		subad (blue print + 87-2424)
0723	"	1	NE		Ad
0728	"	1	NE		Ad
FF 0745	"	1	⊙		then flew SE } feeding flock
C	Sooty tern	90	⊙	2651	Ad 1 coll
	L. Frig	2	⊙		Ad ♂
0747	BFB	1	NE		imm
0755	BFB	2	E		Ad
TF 0756	Sooty tern	7	NE		Ad traveling
0808	BFB	1	⊙		Imm following the ship
0809	BFB	3	NE		Ad
0815	BFB	1	E		Imm
0825	BFB	1	E		ad
0826	Frig sp.	1	W		
FF 0845	SOOTY TERN	15	⊙		12 ♀ 3 ♂ } all ads 12 sitting on H ₂ O 4 ad 3 subad or imm some sitting ad sh ph.
	FRIG. LESSER	15			
	FRIG SP.	6			
	BFB	25			
	RFB	7			
	BB	1			
	WEDGE TAIL	1			
BS 0850	BFB	1			imm w blue steamer following
AS BS OF 0904	"	3			imm 1 w blue paint 2 w blue steamer
0915	"	1			imm 1 w blue steamer + blue paint
0917	"	2	E		ad
0922	WRSP	3	⊙		ad
0947	BFB	1	SW		ad
0958	BFB	1	SE		ad
SF 0959	Frigate sp.	30	⊙		ad } Searching
	BFB	8	⊙		



TUNA
JUMPING



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

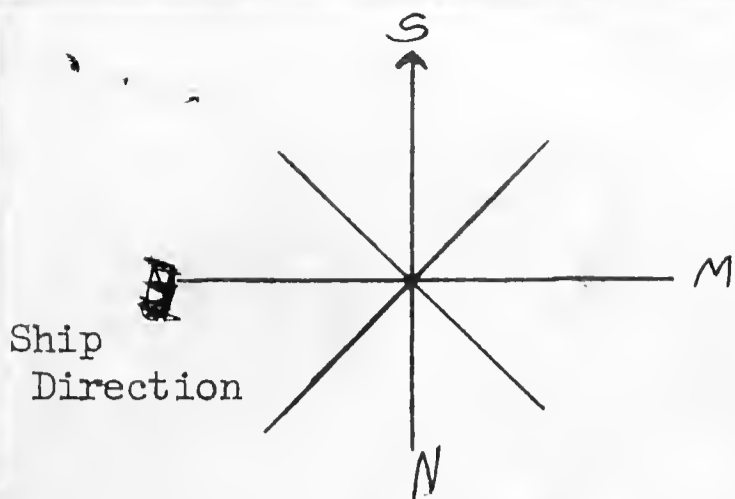
OBSERVERS:

10-12 TUX & Heiden
12-14 Fitch & Huber
14-16 Crossin

Date 13 Dec 1966
Pg.# 2

SPECIMEN or DIURNAL GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1018	W. R. SP.	1	⊙		
1025	SOOTY TERN	4	S		Ad.
1040	Sooty Tern	3	E		ADULTS
1047	Lesser FRIG.	1	⊙		♀
1105	SOOTY TERN	1	S		Ad.
1109	B.F.B	1	⊙		immature - BLUE streamered - feeding & (observed chasing flying fish), diving
1114	WRSP	1			SITTING ON H ₂ O
1129	SOOTY TERN	1	N		Imm.
1135	WRSP	1	⊙		
1214	B. Frig	1	W		♀ and
1217	sooty tern	2	N		ad
C 1225	RITB	1	⊙		
RSC 1225	BFB	1	⊙		collected by L. Huber # 2653
FF 1253	Sooty Tern	24	⊙		collected by L. Huber #568-70052 2652 + Blue Streamer
TF 1324	WRSP	4	S		feeding flock
1351	BFB	1	N		adult
1409	"	1	E		ad.
1425	"	1	N		ad.
TF 1428	Sooty Tern	12	E		all ad.
1455	BFB	2	N		ad's.
C 1468	WRSP	3		2654	cell of moving together, prob. all Leach's. 1 Leach's coll RSC.
	Leach's SP	1			
1515	BFB	1	N		ad.
TF 1517	Sooty Tern	22	N		all ad's
	BFB	1			
1522	Sooty Tern	3	S		ads.
TF 1524	Sooty Tern	5	N		ad's.
1525	" "	2	N		ad.
1527	" "	4	N		ad.
1529	" "	2	N		ad.
TF 1542	" "	6	W		ad's
1548	" "	3	N		ad's.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

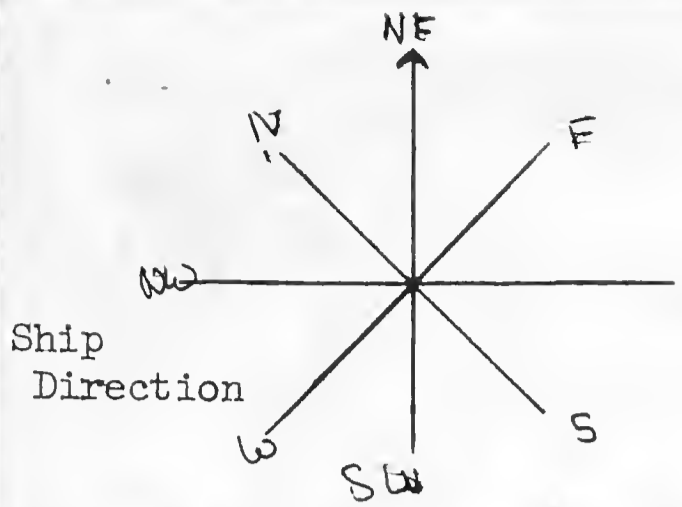
14-1600 Crossin
16-18-TUYF Chan.

Date 13 Dec. 1966
Pg. # 3

SPECIMEN or GRID

TIME SPECIES # DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1550	Sooty Tern	2	E		ad.
1634	B.F.B	1	N		ADULT.
1640	R.T.B.	1	⊙		Subadult - unbanded.
1643	R.F.B	1	N		immature
1700	SOOTY TERN	7	NW		ads
1702	"	3	NE		ads.
1708	WRSP	1	SE		
1712	"	1	SE		
1714	"	1	SE		sitting on 1-20
1747	B.P.B	1	N		immature
1756	Sooty T.	3	N		ADULTS
1751					PORPOISE SPLASHES SEEN, ONE BLINNY SEEN ONCE - SMALL G-Y
FF 1758	Sooty T.	1	N		adult
1819	Sooty tern	20+	⊙		Ad (the ones I could see; far out)
1843					S S close obo



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

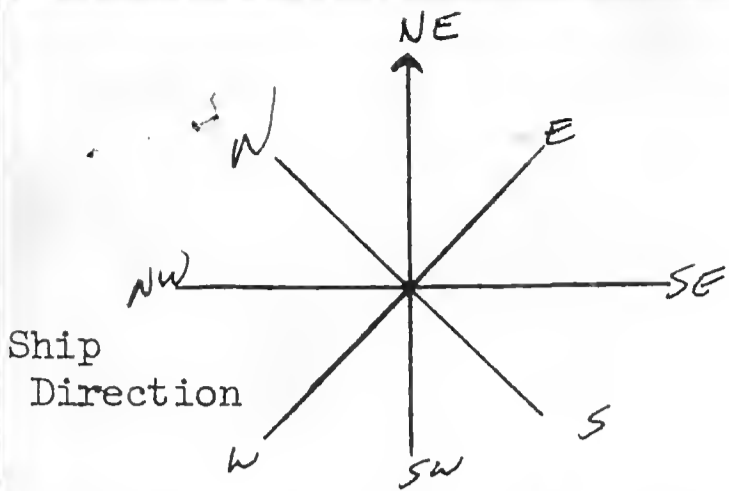
OBSERVERS:

55-2100 Balcomb
21-2400 Fitch
+ 300 Tux
03-0600 Huber

Date 13/14 Dec, 1966
Pg.# 1

SPECIMEN or NOCTURNAL GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1843					Sunset begin nocturnal observations
1947	Sooty tern	1	SW		Ad
2020	Sooty tern	3+	?		Ad. calling
2035	"	2+	?		"
2055	"	2	E		Ad.
2058	"	2	O		" following ship
2110	Sooty Tern	1	SW		adult CHANGE WATCH
2124	Sooty Tern	3	E		adults
2143	Sooty Tern	1	SW		adult
2158	Sooty Tern	1	?		calling
2210	Sooty Tern	1+	?		calling change course to North
2240	" "	1+	?		calling
2300	" "	1	?		
2318	" "	1	SW		adult
2339	" "	1	?		calling
2339	" "	2+	SW		calling - adults
2348	" "	1	?		calling - adult
0012	Sooty T.	1	⊙		ADULT "CHANGE WATCH"
0015	" "	2	⊙		ADULTS - CALLING - CIRCLED SHIP.
0022	" "	1	⊙		ADULT "
0028	" "	1	⊙		ADULT "
0115	" "	1	⊙		ADULT. CALLING
0155	" "	2	NE		ADULTS.
0210	" "	1	N		"
0225	" "	1	NE		"
0238	" "	2	⊙		" "
0315	" "	2	⊙		Ad calling
0320	Storm petrel	1	⊙		" CHANGE WATCH.
0340	Sooty tern	2	⊙		Ad calling
0350	" "	1	⊙		" "
0405	" "	1	⊙		" "
0430	Shear/pet	1	⊙		low over H ₂ O, small BWP size
0633					SUNRISE CLOSE NOCT. OBS.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

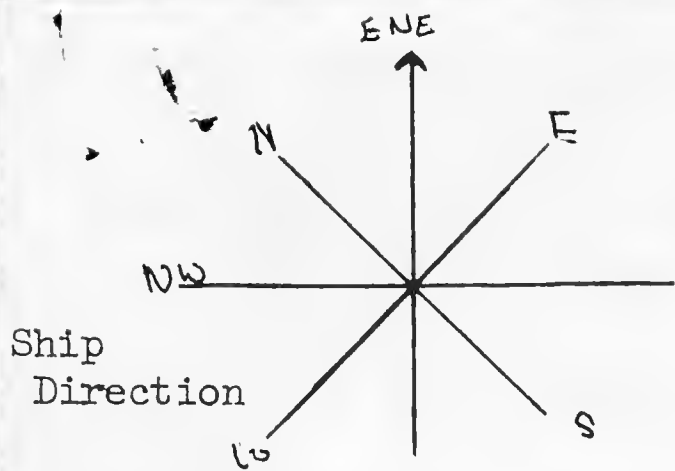
OBSERVERS:

06-0800 HEIDEN + CHAN
8-10- TUY - THOMPSON
10-1200 Fitch + Heiden
12-1400 Crossin + Thompson
14-1600 Fitch + Balcomb

Date 14 DEC. 1966
Pg. # 1

SPECIMEN
or
DIURNAL
GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0633					SUNRISE BEGIN OBS
0710	WRSP	1	⊙		
SF 0715	SOOTY TERN	8	⊙		ads
	FRIG. SP.	1	⊙		
0800	PI/T P?	1	SE		distant lt phase wedges on PI (probably)
SF 0811	WWP	1	S		a dark crested individual
0816	SOOTY T	6	⊙		AD's.
0835					
0945					RAINSQUALL COMMENCES
1015					" RAIN BEGINS "
					RAIN ENDS
1015	RTTB	1	⊙		
1020	WRSP	1	⊙		
1032	WWP	2	⊙		flying, finally lit on H ₂ O
SF 1112	Sooty Terns	10	⊙		8 adults 2 immatures } searching flock
	BWP	1	⊙		
1123	BFB	1	⊙		adult circling ship
1133	SOOTY TERN	2	E		Ad.
1225	Sooty Terns	2	E		Ad.
1238	" "	1	N		ad.
BP 1248	Sooty Tern	1	SW		Ad.
1253	BFB	1	⊙		
1255	Sooty Tern	1	S		Imm - blue point
1302	BFB	1	⊙		Ad.
SF 1309	Sooty Terns	5	⊙		Imm - Feeds
C 1345	Sooty tern	1	N		Ads, traveling searching
BP 1403	BFB	1	⊙		coll. RSC. ad # 2655
1403	Sooty tern	3	N		imm Bluepoint.
1404	" "	2	N		Ad
1405	" "	1	N		Ad
1425	" "	1	S		Ad
1440	B.F.B	1	⊙		imm.
1447	soot, tern	1	NW		Ad
FF 1448	soot, tern	12	⊙		feeding flock
	BFB	2	⊙		imm
1510	BFB	1	NE		imm
1542	Sooty tern	1	S		Ad
FF 1600	wedgetail	4	⊙		dk phase
	Sooty tern	15	⊙		Ad
SF 1615	Sooty Tern	28	⊙		adult } searching flock
	Common Noddy	1	⊙		
	Frigate sp.	5	⊙		



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

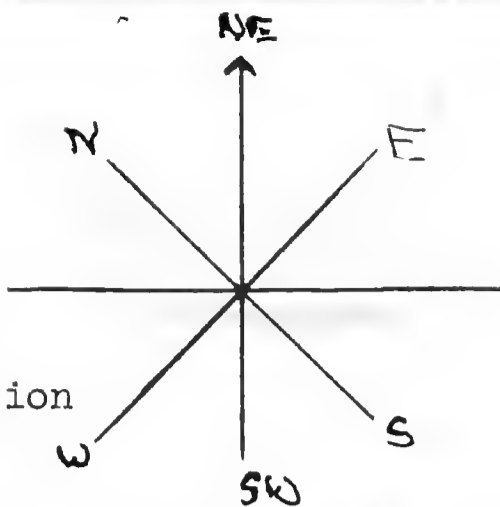
OBSERVERS:

Fitch & Boncombs 1600-55

Date ^{DEC} 14 1966
Pg.# 2

SPECIMEN
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1715					crossed 30' wide slick area that stretched from NW to SE horizon. other broad long slicks around.
1720	Sooty tern	4	N		Ad. At first @, but then split N when they saw us.
1755	RTTB	1	@		Ad. inspected ship once, then flew SSW
TF 1803	Sooty Tern	8	NW		adult
1804	Wedgetail	1	@		Dark phase
1836					Sunset - close obs.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SR-0800 Chan & Balcomb
08-1000 Fitch & Heiden
1000-1200 Thompson & Crossin
12-2- Janet Balcomb

~~16-18~~ HEIDEN 16-18

Date 15 December, 1966
Pg. # 1

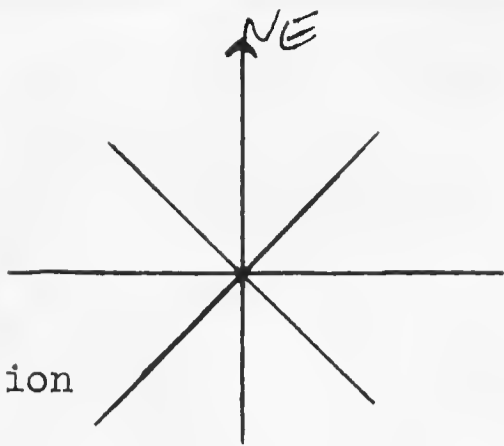
SPECIMEN 1823
or

112 XUMAN

Ship Direction

TIME SPECIES # DIR. BAND NO. REMARKS

0632					Riseth the sun; commenceth the watch.
0654	Storm petrel	1	@		could not see rump.
0804	WRSP WRSP	1	SW		
0820					light rain; extensive squalls to W & NW
0820	WRSP	1	SW		as <u>revers</u> to the rain
0855	WRSP	1			flyeth past the bow
0900	WRSP	1			rain squall commenceth, main squall $\frac{1}{2}$ mi. to SE
0935	Wedgetail	1	@		dark phase
0940					heavy rain squall, winds to 30 knot
0950					ended
1049	Shear/petr	1	SW		Capt. Gess sighting
1050					
1110					
1203	Juan Fernandez Petrel	1	@		dark squall commenceth, heavy rain + High wind
1240	Bird (Dirty)	1	@		in rain.
1345	wedgetail	2	@		dk phase.
1353	RTTB	1	@		Ad. investigated ship
1420	SHEAR/PET	1	CE		JFP/WEDGETAIL in rain
1435	WRSP	1	CE		
1513	JFP	1	E		
1517	WEDGETAIL?	1	E		dk ph. belly lightest (PINKFOOT?)
SF 1520	SOOTH TERN	9	NE		ads
	WEDGETAIL	4	NE		dk ph
	BULLWERS	1	NE		
	JFP	3	NE		
1530	BULLWERS	1	W		
1532	RTTB	1	CE		imm investigated ship
1540	SHEAR/PET	1	SE		vegetable
1637					
1639	PTER. SP.	1	@		disturb
1703	SHEAR/PET	1	SE		
1720	BULLWERS	1	E		large white below - look alone
1823					Sunset - end of observations



Ship
Direction

SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

1800-2100 Thompson

Date 15-16 Dec. 1966

Pg. # 1

SPECIMEN
or

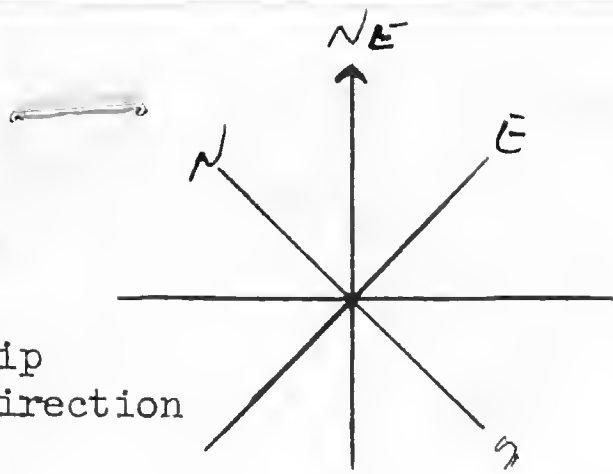
Nocturnal

TIME SPECIES # DIR. BAND NO. REMARKS

1825

0045

Sunset, open observations
CLOSE OBS.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SR → Crossin + Fitch
0800-1000 Hiber + Boland
1000-1200 Mompert + Hilden
1200-1400 - Clark + Ted

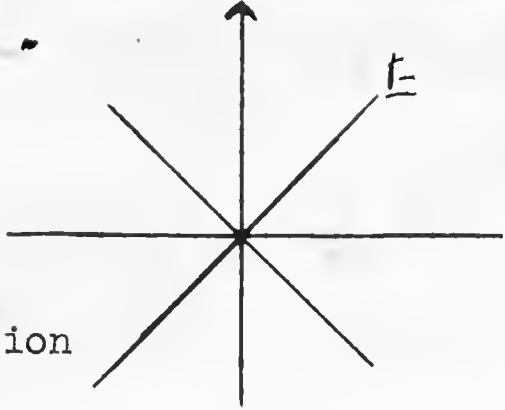
Date 16 Dec. 1966
Pg.# 1

SPECIMEN
or

TIME SPECIES # DIR. BAND NO. REMARKS

0629					Sunrise - begin wind sb. See Rough
0655	BWP	1	NE		hovering at times - coming about to a stop into the wind while barely above a wave.
0707	RTTB	1	N		
0715	BWP	1	W		following ship.
0725	JFP	1	NW		
0730	wedgetail	1	NW		dark phase
0730	RFB	1			following. imm. - int. phase.
0740	JFP	1	N		
0743	wedgetail	1	N		dark phase
0818	Heard's spst	1			first seen flying high and in a straight line going with the wind (SW) then as it paralleled the ship it turned and dipped down into the swells and flew into the wind with the ship for a while. but eventually it got farther and farther behind as although still flying into the wind.
0845	Pip/Tah. p	1	⊙		
0855	wedgetail	1	SE		in spite of a good look, no light area could be seen on neck. dark ph.
0909	RTTB	1	⊙		nd
0910	RFB	1	⊙		imm
0932	Bulwer's	1	NE.		
0938	Phaenix/tah.	1	S		
0955	common noddy	1	E		Looked imm.
1005	WEDGE TAIL	1	N		DARK PH.
1045	SOOTY TERN	1	E		ph.
1105	Wedgetail	1	SE		dark phase
1110					
1131					Rain Squans begin
1158	BULLWERS	1	N		Rain Squans end
1212	WEDGETAIL	1	SW		dh ph.
1337	"	1	S		dh ph.
1345	"	1	⊙		dh ph.
1415					commence enormous storm.
1417	Pip/Tah.	1	S		at edge of storm.
1438					commence the calm after the storm
1618	Phaenix/tah.	1	SE		
1650	Bulwer's	1	NW		

NE



Ship Direction

SMITHSONIAN INSTITUTION
 DIVISION OF BIRDS
 AT SEA DAILY LOG - E

SPECIMEN
 or

non bird

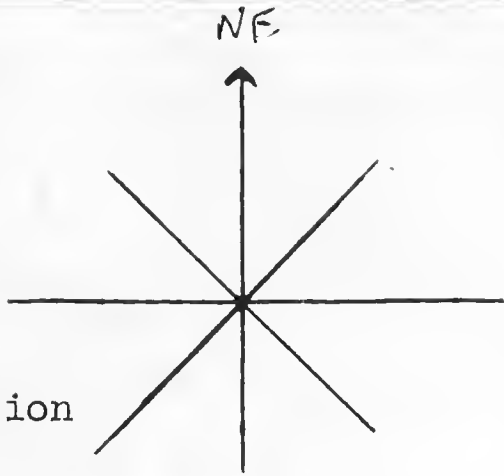
OBSERVERS:

16-1800 Thayer + Hoff

Date Dec. 16, 1966

Pg.# 2

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1749	Kermadec I.	1	SE		Dark phase - white primary shafts
1752	SFP	1	SE		
1809					Sunset - close observations
1809					sunset



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

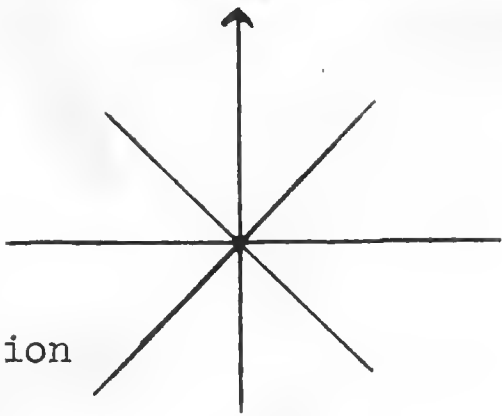
OBSERVERS:

0625-0800 Huber & Cronin
0800-1000 Thompson & CHAM
10-12 - Tux & Heister
12-14 Fitch & Huber
14-16 - Bulwer & Cronin
16-55 - Chan & Tux
Date 17 Dec. 1961
Pg. # 1

SPECIMEN
or
DIR. BAND NO. REMARKS

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0625					sunrise
0635	shear pet.	1	SW		small possibly auduboni or WW P.
0835	JFP	1	NW		
0845	SMALL PTERO.	1	ce		
FA 0900	TERN SP:	25±5			SOOTY'S? JFP'S SEEN BWP'S SEEN LEAST'S?, COMMON'S? WOULD YOU BELIEVE - ARCTIC? PRETTY HAIRY IN GENERAL FEEDING TERNS + SHEARPETS 20-22' FT - MAX SWELLS 30-40 KT WINDS
	LARGE PTERO	12			
	SMALL PTERO	15			
1018	WEDGETAIL PTERO. SP.	10			
1025	WEDGETAIL	1	⊙		dk. pl. seen
1115	Bulwer's	1	⊙		small; 1st seen
1125	BWP	1	⊙		OK. pl. 1
1230	Juan Fernandez Petrel	1	W		
1330	JFP	1	SW		
1610	"	1	⊙		
1740	BULWERS	1	ce		
1759					SUNSET CLOSE OBS.

NNE



Ship
Direction

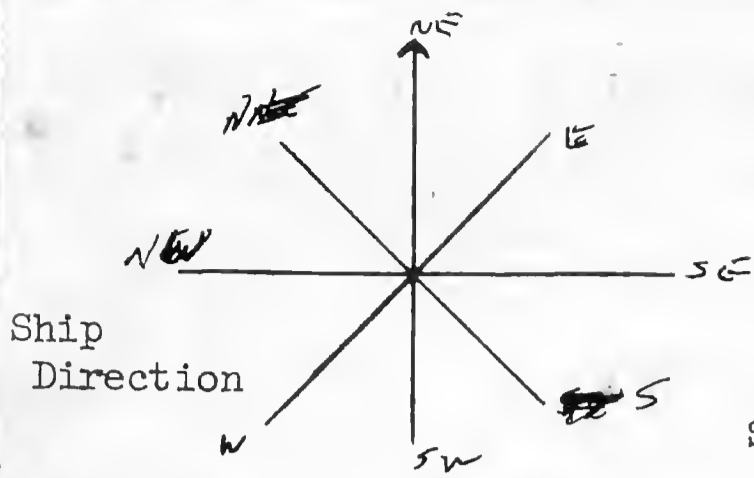
SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

SR - 0800 CHAN & HEIDEN
8-10 - Turk & Thompson
10-12 Frick & Heiden
12-14 Crossin
14-16 Hubert & Turk
16-55 →
Date 18 DEC 1966
Pg.# 1

SPECIMEN
or
DIURNAL
NON GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0620					SUNRISE BEGIN
0637	PTERO S.P.	1	SW		arching hi - 40'
0718	BFB	1	W		no "E" in investigation
0740	PTERO. SP.	1	W		SUBAD INVESTIGATING
0750	"	1	S		SMALL DARK ABOVE, WHITE BELLY, SMALL WHITE FLASH ON DARK UNDERWING
SFO945	Sooty Terns	26 ±	E		ads.
	Pterodroma sp.	12 ±			large
	SFP	9 ±			about 9 identifying but notably more
	Wedgetail	1 ±			light phase - only 1 identifying but notably more
					a large searching flock - at about 50-60 birds - but very difficult to identify and count individuals due to high waves and wind
1031	Wedgetail	1	SW		light phase
1039	JFP	1	W		
1045	BFB	1	W		Imm; diving for flying fish
1058					same BFB, still following ship and diving for flying fish
1128	Wedgetail	1	SW		light phase flyth by at high speed
1520	BIRD'S	2	W		SMOOTH BILLED ANI Flying with ANOTHER BIRD - PROBABLY ITS MATE - ITS IDENTITY WAS RECOGNED TO BE A TUFTED TITMOUSE, ALTHOUGH BEING OF A MELANISTIC, CENT. PACIFIC PHASE, IT MIGHT HAVE BEEN A FLYING AARDVARK! FLYING FISH WERE NOTED IN THE VICINITY WERE GAWKING AT THE UNGAINLY PAIR AS THEY FLEW MERRILY BY.
1545	Shear/pet	2	W		possibly JFP.
1555	Shear/pet	1	NE		weird
1627	RFB	1	W		imm, circled sun
1645	Nowalls shearwater	1	W		
1704	BWP	1	W		feeding from the waters
1749					sunset close obs.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

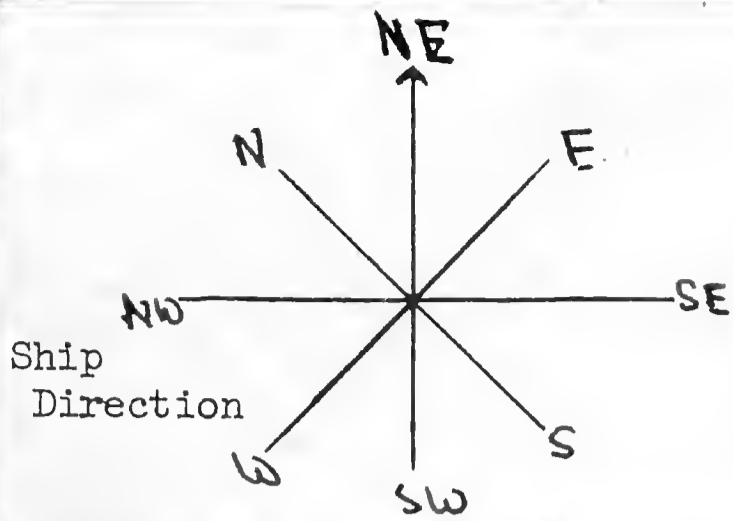
OBSERVERS:

5R - 0700 CHAU + BALCOMB
 08-1000 Fitch + Heiden
 1000-1100 Crossin + Thompson
 12-1400 - Tux + Balcomb
 14-1600 -
 1600-55 HEIDEN
 1700 Date 19 DEC 196
 Pg. # 1

SPECIMEN or Non-GRID
 DIURNAL

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0619					SUNRISE BEGIN OBSERVATION
0636	WEDGETAIL	1	SE		int ph.
0652	"	1	SE		lt ph.
0715	"	1	SE		ex ph.
0746	WEDGETAIL	1			07:45 - PORT ROLL - 340
0815	PTERO. SP.	1	W S		lt ph.
0825	Fairy Tern	5	NE		PERSISTENT
1058	J.F.P.	1	SW		searching flock
1250	J.F.P.	1	W		
1253	J.F.P.	1	SW		
1326	W.R.S.P.	1	⊙		
1422	Sooty tern	1	S		Ad
1430	RFB	1	SE		imm. same looked split
1500	WEDGETAIL	1	SE		lt ph.
1600	J.F.P.	1	SE		ascending to 60'
1647	WRSP	1	⊙		
1708	wedgetail	2	SE		light phase
1740					SUNSET; CLOSE OBSERVATIONS

SF



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

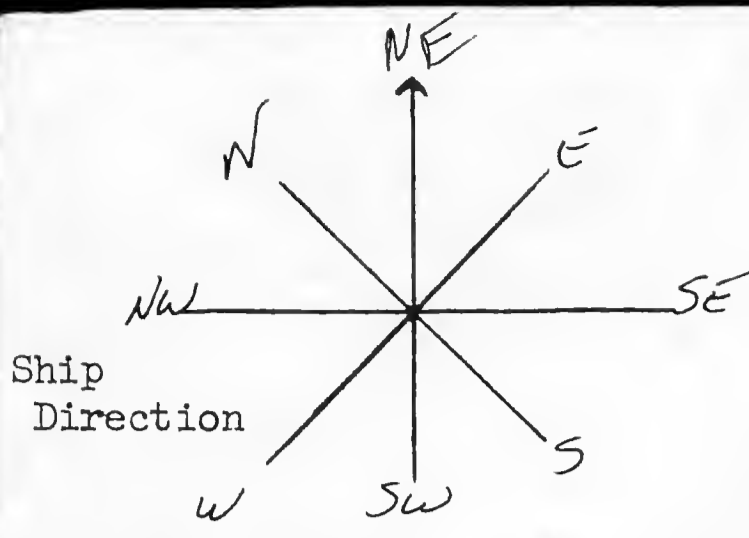
OBSERVERS:

Sunrise - 0800 Crossin + Fitch
0800 - 1000 - Huber
1000 - 1200 Hayden + Thompson
12 - 1400 - Chan + Tully
14 - 1600 - Balcomb + Fitch
1600 - 55 Thompson + Huber

Date 20 December
Pg.# 1

SPECIMEN or Non-GRID
Diurnal

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0616					Sunrise
0617	JFP -	1	NE		
0619	RTTB	1	⊙		
0730	Pterodroma sp.	1	S		light below - far out.
0733	BWP	2	S		
1005					Rain Squalls begin
1017					h u over
1037	JFP	1	NW		
1100	Laysan Albatross	1	⊙		Following the ship { AROUND HIS NECK HANGS AN ANCIENT MARINER }
1107					Rain begins
1303	R.T.T.B.	1	⊙		seen sitting in H ₂ O - then took - "ADULT"
1335					RAIN SQUALL BEGINS
1340					RAIN SQUALL ENDS
1418	Pterodroma sp.	1	N		light below - far out
1508	Shear / Pet.	1	SW		light below - dark above
1535	Sooty Tern	150±10	⊙		rain squall beginning
FF 1555	Wedgetail	30	⊙		15 to 20 to immatures
	RFB	3	⊙		light phase
	Ptero. sp.	4	⊙		immatures
					feeding flock at edge of large rain squall
1600					rain squall ends
1645	RFB	1	⊙		Following the ship - Imm - no bands or
1648	RFB	2	⊙		two immatures join the first and follow the ship color marking
1650					
1734					Rain begins Sunset close watch



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

0615-0800 Huber + Crossin
0800-1000 CHAN + THOMPSON
10-12 - Heenan + Torg
12-14 Fitch + Huber
14-16 Bullock + Crossin
16-55 - Fox + Chambers
Date 21 Dec, 1966
Pg.# 1

SPECIMEN or DIURNAL NON-GRID

TIME SPECIES # DIR. BAND NO. REMARKS

0615 sunrise begin watch

0619 BWP 1 N

0650 WRSP 1 S

0703 RFB 1 SW

0810 WEDGETAIL 1 SW

0903 RFB 1 S

0915 JFP 1 SW

0946 JFP 1 SE

0952 JFP 1 NW

1005 WEDGETAIL 2

1122 SOOTY TERN 1 SW

1135 JFP 1 NORTH

1135 DARK RUMPED PET. 1 W

1324 Wedgetail 1

1352 L20 dis St. pet 1

1430 Fairy tern 2 (Two) W

1625 SHEAR/PET 1 W

1634 Wedgetail 1

1729

Imm.

light phase

1st phase adult

STARBOARD ENGINE → 550+

light phase

NO AGE DATA COULD BE GOTTEN.

MAMMAL SIGHTING - 8 TINY ANTLERED ANIMALS OBSERVED FLYING HIGH OVER SHIP - FOLLOWED BY ANOTHER STRANGE ANIMAL: RED BODY, BLACK FEET, WHITE FACE WITH RED TOP NOTCH -

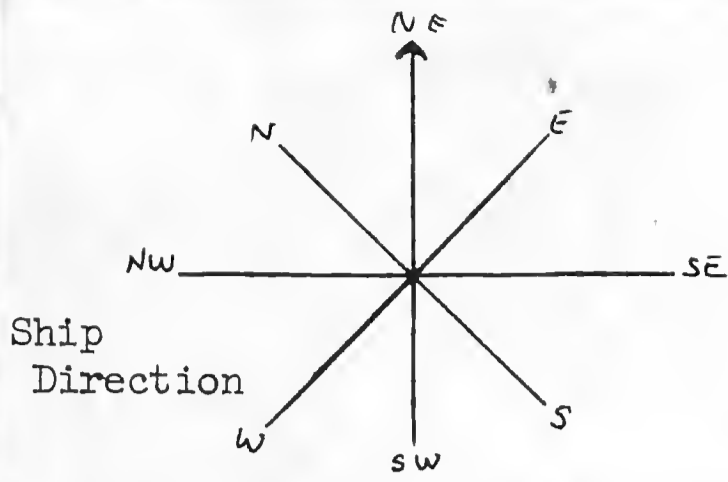
(Huber's mistake) rain squall light phase (actually bird's mistake (it was six minutes early))

light phase

SUNSET CLOSE OBS.

ANIMAL WAS STANDING IN THIS: HIS CALL SOUNDED LIKE "Ho, Ho, Ho!"





SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

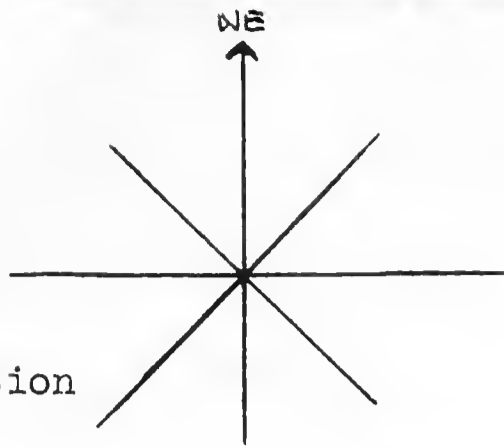
OBSERVERS:

57-0800 CHAN & HEIPER
0800-1000 - TUX & THOMPSON
1000-1200 Fitch & Holden
1200-1400 Crossin & Thompson

Date 22 Dec. 1966
Pg.# 1

SPECIMEN or DIURNAL Non-GRID

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0612					SUNRISE BEGIN OBS. - {SEA CALMER THAN 21 DEC.}
0632	RFB	1	ce		SUBAD, following, LANDED SEMI SUCCESSFULLY ON BOOM { WIND NOT AS FAST.
0850	Fairy Tern	1	ce		
0855	WTTB	1	a		following ship.
1002	RFB	1	ce		Ad white phase - fly around ship
1009	Wedgetail	1	⊙		light phase
1038	WTTB	1			
1256	WTTB	1	SW		fowl sittith upon the waters and riseth majestically into the sky as our barge approacheth
FF 1339	sooty tern Fairy tern	150 3			all ad. seen I dived for a fish and then Feeding, but far off, along edge of rain squall. Flew over to the SW - Ad.
TF 1446	C. Noe Fairy Tern Sooty tern	14 3 1	E FE E		Travelling pink
1514	WTTB	1	⊙		Ad
1555	Shear pet	1	SE		light below, dark above WTS size
1559	Albatross sp	1			following ship, in sun could not identify
1702	RFB	2	⊙		imm. investigated ship
1713					SUNSET CLOSE OBS.



SMITHSONIAN INSTITUTION
DIVISION OF BIRDS
AT SEA DAILY LOG - E

OBSERVERS:

Chan & Balcomb SR-0800

Fitch + Heiden 08-1000

1000-1200 Thompson

1200-1400 - Tux & Balcomb

16-18 CROSSIN + HEIDEN

18-55

Date 23 December 1966

Pg.# 1

SPECIMEN or *DIGITAL*

Ship Direction

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
0713					Sunrise - begin observations.
0750	RFB	1	⊙		imm following
0810	WTTB	1	E		
0848	WTTB	1	⊙		circling ship
0852	WTTB	1	⊙		circling ship - bird seen at 0848 also still circling ship
					0855 ONE WTTB WTTB landed on H ₂ O for 30-50 seconds in front of ship
1321	Boddy sp?	1	⊙		imm.
1550	Herald's pet	1	⊙		sitting on H ₂ O
1857	Pomarine jaeger	1	⊙		imm
1632					Sperm whales 10-15 or more; widely separated. one cow w/ sm. calf 25mi S of Oahu. calm seas
1641	Pomarine Jaeger	1	E		
1644	BFA	1			dark phase → toward island
1645	POM. JAEGER	1	NE		following ship
1647	" "	2	NE		Ad flew up off water upon approach of above BFA light ph.
1648	" "	2	NE		ad. following ship light ph.
1652	" "	1	NE		ad. following ship light ph.
1655	" "	2	NE		light ph. ad. following ship
1657	" "	2	NE		ad. light ph. following ship
1658	" "	5			ad. light ph. following ship
1659	" "	1	NE		light ph. following ship
1710	" "	1	NE		ad. light ph. sitting on H ₂ O - 2 Ad's, 3 Imm
1713	" "	1	NE		Imm following ship
1715	" "	2	NE		Imm
1717	" "	1	N		2 Ad's - light phase
	" "	1	N		Ad - light phase
1720	" "	3	NE		Ad light phase
1726	" "	1	E		ad. light phase following ship
1750	" "	1			dark ph.
1756	" "	2	⊙		dark ph. following ship
1758	" "	2			"color phase not discernible"; following ship

Honolulu well in view

End SFC 16

SHIP'S WEATHER OBSERVATIONS

NAME OF VESSEL

- S/S
 M/V

CALL SIGN

MAILING ADDRESS (*American addresses preferred*)

CHECK FORMS OR SUPPLIES REQUIRED

- SHIP'S WEATHER OBSERVATIONS, WB FORM 615-5
 METEOROLOGICAL RADIOTELEGRAM, WB FORM 630-9
 BAROGRAM, WB FORM 455-12

WEATHER MAP BASES

- N. ATLANTIC - U.S. INTERCOASTAL
 N. PACIFIC - U.S. INTERCOASTAL
 S. ATLANTIC - U.S. INTERCOASTAL
 S. PACIFIC - INDIAN OCEAN
 WEATHER SERVICE FOR MERCHANT SHIPPING
 ENVELOPES

INSTRUMENTS IN NEED OF SERVICE

- BAROMETER BAROGRAPH PSYCHROMETER

DO NOT WRITE BELOW

RECEIVED (*Weather Bureau Office*)

ACTION TAKEN (*Check one*)

- SUPPLIES FURNISHED AS MARKED X ACKNOWLEDGED
 ALL ACTION REFERRED TO CENTRAL OFFICE

DATE ACTION TAKEN

NAME OF VESSEL □ S/S □ M/V		NAME OF CAPTAIN		WB FORM 615-5 (1-64)		U.S. DEPARTMENT OF COMMERCE WEATHER BUREAU	
COUNTRY OF REGISTRY		CALL SIGN		FROM		SHIP'S WEATHER OBSERVATIONS	
MONTH 19		BAROMETER NO.		TO			
		VOYAGE		Check (✓) TEMPERATURES (COLS. 16-18, 28-30, 32-33):		<input type="checkbox"/> °C <input type="checkbox"/> °F	

- INSTRUCTIONS**
- Begin a new sheet:
 - For the first observation of a new month.
 - At the beginning of each voyage.
 - Upon sailing from one octant to another.
 - Upon sailing from one ocean to another.
 - Fill in the blanks on each page of the form. (Name of vessel, barometer number, etc.)
 - Enter the coded synoptic (0000, 0600, 1200, 1800 G.C.T.) or special weather observations in columns 1 through 44.
- Code the message in accordance with the "International Weather Code for Ships."
 4. At end of each voyage, remove all forms with completed observations and mail in the postage-free envelopes provided.
 5. **Radio transmission**—Copy coded data for radio transmission from the unshaded numbered groups of columns. Each code group consists of five figures with a slant (/) indicating missing data. Omit code group 8 and 9 in message if no data are available.

DAY OF MONTH (G.C.T.)	DAY OF WEEK (G.C.T.)	POSITION OF SHIP			TIME (G.C.T.)	TOTAL CLOUD AMT. (Coded)	WIND		WEATHER		PRESSURE		AIR TEMP. (Rounded)	TEMPERATURE		CLOUDS (Coded)				COURSE OF SHIP (0-9)	SPEED OF SHIP (1-9)	3-HOUR PRESSURE TENDENCY (0-9)	TEMPERATURE			DIFF. AIR-SEA (Coded)	DEW POINT (Rounded)	WAVES (Make 2 entries if 2nd pattern observed)						REMARKS (Enter time of wind shifts, frontal passages, beginning and ending of precipitation, coded ice data, waves over 30 1/2 ft., etc.)	CHECK (✓) IF SENT BY RADIO	INITIALS										
		OCT. ANT. (0-3, 5-8)	LATITUDE (Degrees and tenths)	LONGITUDE (Degrees and tenths)			DI-REC-TION (True)	SPEED (True)	PRESENT	PAST	CORREC-TION	DATE COMPARED		DRY BULB	WET BULB	AMOUNT OF LOW CLOUD	TYPE C _L	HEIGHT OF LOW CLOUD	TYPE C _M				TYPE C _H	SEA WATER	DIFF. AIR-SEA (-if air colder than sea)			DEW POINT	INDICATOR	INDICATOR	DIRECTION	PERIOD	HEIGHT				INDICATOR	DIRECTION	PERIOD	HEIGHT						
		(0-3, 5-8)	L ₁ L ₂ L ₃	L ₁ L ₂ L ₃			(00-36)	(00-36)	(00-99)	(0-9)	(0-9)	(0-9)		(Degrees and tenths)	(Degrees and tenths)	(0-9)	(0-9)	(0-9)	(0-9)				(0-9)	(0-9)	(0-9)			(0-9)	(0-9)	(0-9)	(0-9)	(0-9)	(0-9)				(0-9)	(0-9)	(0-9)	(0-9)	(0-9)	(0-9)	(0-9)	(0-9)	(0-9)	(0-9)
17	7	1	005	708	00	5	10	15	78	01	6	10100	10	030	29	29	27	3	2	4	6	0	1	3	7	14	29	00	26	0	00	26	1	1	3	2	1	2	5	6						
17	7	1			06			17				10095	10		29	29	25	1	4	1							29	-1	24	0			1				1		5	5						
17	7	1	70	677	12	5	27	20	10	1	2	10103	10	023	29	29	26	5	7	3	0	0	1	3	7	10	29	00	25	0	00	25	1	7	3	3	1	6	5	10						
17	7	1			18							10118	10		29	29	24	5	7	4	7						29	7	22	0			1				1									
18	1	1	006	608	00	6	09	26	78	01	2	10108	10	028	29	29	26	4	3	3	6	0	1	3	4	00	29	00	25	0	00	25	1	9	3	4	1	37	5	1						
18	1	1			06							10110	10		29	29	24	5		4							29	-1	22	0			1				1									
18	1	1	097	619	12	6	08	26	70	01	2	10115	10	045	28	28	25	5	7	3	6	0	1	3	7	14	27	-1	24	0	02	24	1	8				1								
18	1	1			18	4						10100	10		27	27	24			4	1						29	-2	23	0			1				1									
19	2	1			00	5	17	20	70	02	2	10120	10	104	28	28	26	3	2	4	7						29	-1	25	0	52	25	1	7	3	4	1	7	1	1						
19	2	1			06							10118	10		27	27	24	3		4	7	1					29	-2	23	0			1				1									
19	2	1	116	665	12	3	01	26	70	02	1	10121	10	102	28	28	24	3	2	4							28	00	22	0	0	22	1				1									
19	2	1			18							10140	10		27	27	23	1		4							28	-1	21	0			1				1									
20	3	1	125	650	00	6	01	26	78	02	2	10133	10	103	28	28	24	4	2	4	6	0	1	2	7	14	28	00	22	0	0	22	1				1		7	3	1					
20	3	1			06							10138	10		27	27	24	4		4							28	-1	23	0			1				1									
20	3	1	135	651	12	6	19	20	78	02	2	10144	10	101	27	27	24	4	2	4	6	0	1	2	4	00	27	00	23	0	00	23	1	1		4	1	6	5	1						
20	3	1	134		18	1						10135	10	105		17	23	1		4							27	00	21	0			1				1									
21	4	1	138	646	00	5	17	26	78	02	2	10140	10	120	27	27	25	3	2	4	6	0	1	2	7	20	27	00	24	0	0	24	1	7	3	4	1									
21	4	1			06	5						10152	10		27	24			4		7	1					27	00	23	0			1				1									
21	4	1	142	636	12	3	01	26	78	02	2	10145	10	115	26	26	23	3	6	4							27	-1	22	0	52	22	1	1		4	1	13	5							
21	4	1			18	4	17	15	75	01	1	10150	10	102	25	25	23	3	3	7	7						27	-2	22	0			1				1									

SHIP'S WEATHER OBSERVATIONS

NAME OF VESSEL

- S/S
- M/V

CALL SIGN

MAILING ADDRESS (*American addresses preferred*)

CHECK FORMS OR SUPPLIES REQUIRED

- SHIP'S WEATHER OBSERVATIONS, WB FORM 615-5
- METEOROLOGICAL RADIOTELEGRAM, WB FORM 630-9
- BAROGRAM, WB FORM 455-12

WEATHER MAP BASES

- N. ATLANTIC - U.S. INTERCOASTAL
- N. PACIFIC - U.S. INTERCOASTAL
- S. ATLANTIC - U.S. INTERCOASTAL
- S. PACIFIC - INDIAN OCEAN
- WEATHER SERVICE FOR MERCHANT SHIPPING
- ENVELOPES

INSTRUMENTS IN NEED OF SERVICE

- BAROMETER
- BAROGRAPH
- PSYCHROMETER

DO NOT WRITE BELOW

RECEIVED (*Weather Bureau Office*)

ACTION TAKEN (*Check one*)

- SUPPLIES FURNISHED AS MARKED X
- ACKNOWLEDGED
- ALL ACTION REFERRED TO CENTRAL OFFICE

DATE ACTION TAKEN

NAME OF VESSEL <input type="checkbox"/> S/S <input type="checkbox"/> M/V					NAME OF CAPTAIN					WB FORM 615-5 (1-64)					U.S. DEPARTMENT OF COMMERCE WEATHER BUREAU					INSTRUCTIONS									
COUNTRY OF REGISTRY					CALL SIGN					V O Y A G E					FROM					TO					Check (✓) TEMPERATURES (COLS. 16-18, 28-30, 32-33): <input type="checkbox"/> °C <input type="checkbox"/> °F				
MONTH					BAROMETER NO.																								

1. Begin a new sheet:
 - a. For the first observation of a new month.
 - b. At the beginning of each voyage.
 - c. Upon sailing from one ocean to another.
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2. Fill in the blanks on each page of the form. (Name of vessel, barometer number, etc.)
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5. Radio transmission—Copy coded data for radio transmission from the unshaded numbered groups of columns. Each code group consists of five figures with a slant (/) indicating missing data. Omit code group 8 and 9 in message if no data are available.

DAY OF MONTH (G.C.T.)	DAY OF WEEK	POSITION OF SHIP			TIME (Nearest hour 00-23) (G.C.T.)	TOTAL CLOUD AMT. (Coded) (0-9)	WIND		VISIBILITY (Coded) (90-99)	WEATHER		PRESSURE		AIR TEMP. (Rounded)	TEMPERATURE		CLOUDS (Coded)				COURSE OF SHIP (0-9)	SPEED OF SHIP (1-9)	3-HOUR PRESSURE TENDENCY CHARACTERISTIC (0-9) AMOUNT OF CHANGE (mb. and tenths)	TEMPERATURE			DIFF. AIR-SEA INDICATOR (Coded)	DEW POINT (Rounded)	WAVES (Make 2 entries if 2nd pattern observed)				REMARKS (Enter time of wind shifts, frontal passages, beginning and ending of precipitation, coded ice data, waves over 30 1/2 ft., etc.)	CHECK (✓) IF SENT BY RADIO	INITIALS												
		OCT. ANT. (0-3, 5-8)	LATITUDE (Degrees and tenths)	LONGITUDE (Degrees and tenths)			DI-RECTION (True) (00-36)	SPEED (True-knots) EST. <input type="checkbox"/> MEAS <input type="checkbox"/>		PRES-ENT (Coded) (00-99)	PAST (Coded) (0-9)	CORREC-TION BAROMETER AS READ (in., mb., or mm.)	DATE COMPARED BAROMETER CORRECTED (mb.)		DRY BULB	WET BULB	AMOUNT OF LOW CLOUD	TYPE C _L (0-9)	HEIGHT OF LOW CLOUD	TYPE C _M (0-9)				TYPE C _H (0-9)	SEA WATER	DIFF. AIR-SEA (-if air colder than sea)			DEW POINT (Whole degrees)	INDICATOR	DIRECTION (00-36)	PERIOD (Coded)				HEIGHT (Coded)	INDICATOR	DIRECTION (00-36)	PERIOD (Coded)	HEIGHT (Coded)							
		1	2	3			4	5		6	7	8	9		10	11	12	13	14	15				16	17	18			19	20	21	22				23	24	25	26	27	28	29	30	31	32	33	34
12	2	6	008	783	00	6	08	14	98	2	2	1010	10	081	28	28	25	3	2	4	3	1	4	3	7	10	29	-1	24	0	52	24	1	08	3	2	1	07	5	4							
12					06			17				1007	10																																		
12	2	6	005	773	12	3	10	13	70	2	2	1011	10	070	28	28	25	2		4	6		1	3	8	10	37	1	24	0	02	24	1	10	3		1	08	5	6							
12	2	6	001	783	18	6	11	14	10	02	2	1009	10	072	28	28	25	2	2	4	0	0	1	2	07	27	1	25	0	02	25	1	11	3		1		5	5								
13	1	1	005	764	00	6	10	15	98	02	2	1009	10	075	27	29	26	3	1	4	6	1	2	3	7	17	28	1	25	0	02	25	1	10	3		1		5	5							
13					06							1009	10			28	25																														
13	3	1	010	762	12	3	10	12	98	2	2	1010	10	080	28	28	26	3	1	4	0	0	2	3	4	10	27	1	25	0	02	25	1	10	3		1	08	5	4							
13					18							1007	10			27	25																														
14	4	1	013	762	00	6	15	15	78	4	2	1009	10	079	28	28	25	3	2	4		9	4	2	3	28	00	24	0	00	24	1	10	3		1	08	5									
14	4	6	005	765	06	5	10	11	73	2	2	1009	10	070	28	28	25			4	0	4	2	2	27	28	00	24	0	01	24	1	10	3		1		5									
14	4		002	764	12	5	13	11	78	0	2	1009	10	074	28	28	26	3	4	4	0	7	1	3	4	00	27	1	25	0	01	25	1	10	3		1		5								
14		1			18	5	14	04	78	0	2	1009	10	070	27	27	25			1	7	0	1	5		28	-1	24	0	01	24	1	10	3		1		5									
15	5	1	015	753	00	6	05	08	78	01	2	1010	10	080	28	28	26	2	1	3	4	5	1	3	4	00	28	0	25	0	00	25	1	08	3	2	1	08	5	3							
15					06							1009	10			27	25			4	7																										
15	5	1	022	742	12	2	11	12	78	2	2	1009	10	079	28	28	25	2	2	4	0	0	1	3	4	00	27	1	24	0	02	24	1	11	4	2	1	08	5	3							
15	5	1	024	757	18	6	11	07	78	0	2	1009	10	071	28	28	25	2		1	0	7	1	3	1	1	28	0	24	0	01	24	1	10	3		1	08	5	4							
16	6	1	044	732	00	9	05	15	46	10	6	1009	10	071	26	26	25	1	1	0	1	0	1	3	7	14	28	-3	25	0	54	25	1	00	3	3	1	08	5	6							
16	6	1			06							1007	10			27	25																														
16	6	1	052	721	12	6	10	15	17	2	2	1010	10	085	28	28	25	3	4	3	3	4	1	3	4	00	28	0	24	0	00	24	1	10	3		1		5	7							
16	6	1	057	717	18	4	13	15	78	2	2	1009	10	075	28	28	25	3				6	1	3	2	35	28	0	24	0	01	24	1	10	3		1		5								

SHIP'S WEATHER OBSERVATIONS

NAME OF VESSEL

- S/S
- M/V

CALL SIGN

MAILING ADDRESS (*American addresses preferred*)

CHECK FORMS OR SUPPLIES REQUIRED

- SHIP'S WEATHER OBSERVATIONS, WB FORM 615-5
- METEOROLOGICAL RADIOTELEGRAM, WB FORM 630-9
- BAROGRAM, WB FORM 455-12

WEATHER MAP BASES

- N. ATLANTIC - U.S. INTERCOASTAL
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- ENVELOPES

INSTRUMENTS IN NEED OF SERVICE

- BAROMETER
- BAROGRAPH
- PSYCHROMETER

DO NOT WRITE BELOW

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ACTION TAKEN (*Check one*)

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DATE ACTION TAKEN

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INSTRUMENTS IN NEED OF SERVICE

- BAROMETER BAROGRAPH PSYCHROMETER

DO NOT WRITE BELOW

RECEIVED (*Weather Bureau Office*)

ACTION TAKEN (*Check one*)

- SUPPLIES FURNISHED AS MARKED X ACKNOWLEDGED
 ALL ACTION REFERRED TO CENTRAL OFFICE

DATE ACTION TAKEN

NAME OF VESSEL
 S/S
 M/V

COUNTRY OF REGISTRY
 CALL SIGN

MONTH
November 19 *66*

NAME OF CAPTAIN

FROM

TO

BAROMETER NO.

Y
O
A
G
E

WB FORM 615-5
(1-64)

U.S. DEPARTMENT OF COMMERCE
WEATHER BUREAU

SHIP'S WEATHER OBSERVATIONS

Check (✓)

TEMPERATURES (COLS. 16-18, 28-30, 32-33): °C °F

- INSTRUCTIONS
- Begin a new sheet:
 - For the first observation of a new month.
 - At the beginning of one voyage.
 - Upon sailing from one ocean to another.
 - Upon sailing from one ocean to another.
 - Fill in the blanks on each page of the form. (Name of vessel, barometer number, etc.)
 - Enter the coded symbol (0000, 0600, 1200, 1800 G.C.T.) or special weather observations in columns 1 through 44.

Code the message in accordance with the "International Weather Code for Ships."

- At end of each voyage, remove all forms with completed observations and mail in the postage-free envelopes provided.
- Radio transmission—Copy coded data for radio transmission from the unshaded numbered groups of columns. Each code group consists of five figures with a slant (/) indicating missing data. Omit code group 8 and 9 in message if no data are available.

DAY OF MONTH (G.C.T.)	DAY OF WEEK	POSITION OF SHIP			TIME (G.C.T.)	TOTAL CLOUD AMT. (Coded)	WIND		VISI- BILITY (Coded)	WEATHER		PRESSURE		AIR TEMP. (Round- ed)	TEMPERA- TURE		CLOUDS (Coded)					3-HOUR PRESSURE TENDENCY		TEMPERATURE			DIFF. AIR- SEA	DEW POINT	WAVES (Make 2 entries if 2nd pattern observed)				REMARKS (Enter time of wind shifts, frontal passages, beginning and ending of precipitation, coded ice data, waves over 30 1/2 ft., etc.)	CHECK (✓) IF SENT BY RADIO	INITIALS								
		OCT- ANT (0-3, 5-8)	LATITUDE (Degrees and tenths)	LONGI- TUDE (Degrees and tenths)			DI- REC- TION (00-36)	SPEED (True knots) EST. <input type="checkbox"/> MEAS. <input type="checkbox"/>		PRES- ENT (Coded)	PAST (Coded)	CORREC- TION BAROMETER AS READ (in., mb., or mm.)	DATE COMPARED BAROMETER CORRECTED (mb.)		DRY BULB (Degrees and tenths)	WET BULB (Degrees and tenths)	AMOUNT OF LOW CLOUD	TYPE C ₁ (0-9)	HEIGHT OF LOW CLOUD	TYPE C ₂ (0-9)	TYPE C ₃ (0-9)	TYPE C ₄ (0-9)	COURSE OF SHIP (0-9)	SPEED OF SHIP (0-9)	CHARACTERISTIC (0-9)	AMOUNT OF CHANGE (mb. and tenths)			SEA WATER (Degrees and tenths)	DIFF. AIR-SEA (-if air colder than sea)	DEW POINT (Whole degrees)	INDICATOR				INDICATOR	DIRECTION (00-36)	PERIOD (Coded)	HEIGHT (Coded)	INDICATOR	DIRECTION (00-36)	PERIOD (Coded)	HEIGHT (Coded)
13	1	1	144	725	00	7	13	12	70	2	1010.2	10	090	29	29	26	7	4	4	3	0	5	4	6	0	7	28	10	25	0	02	25	1	13	4	1	050						
13	1	1	144	723	06	2	11	8	98	1	1012.9	10	090	28	28	26	3	4	4	0	5	4	3	0	07	28	00	25	0	02	25	1	13	4	1	050							
13	1	1	144	741	12	3	10	06	17	0	1011.6	10	090	29	29	26	3	3	4	0	5	4	6	0	07	28	40	25	0	02	25	1	11	3	1								
13	1	1	144	741	18	3	10	06	17	0	1011.6	10	090	29	29	26	3	3	4	0	5	4	6	0	07	28	40	25	0	02	25	1	11	3	1								
14	2	1	120	751	00	7	13	10	99	2	1010.0	10	080	29	29	26	4	3	4	0	7	5	4	6	14	29	00	25	0	00	25	1	10	3	3	1	07	5					
14	2	1	120	751	06	4	11	7	97	1	1012.5	10	080	28	28	26	4	1	4	0	5	4	4	20	29	-1	25	0	00	25	1	10	3	3	1								
14	2	1	120	751	12	4	11	7	95	1	1012.0	10	100	28	28	25	4	1	4	0	5	4	2	74	28	00	24	0	00	24	1	07	3	3	1								
14	2	1	120	751	18	1	13	04	71	1	1012.3	10	090	28	28	26	1	3	4	0	5	4	2	11	29	-1	25	0	00	25	1	10	3	3	1								
15	3	1	108	784	00	4	11	06	19	1	1010.5	10	085	30	30	26	3	1	4	3	0	5	4	7	07	29	10	25	0	01	25	1	09	3	3	1							
15	3	1	108	784	06	4	11	06	19	1	1010.0	10	085	30	30	26	3	1	4	3	0	5	4	7	07	29	10	25	0	01	25	1	09	3	3	1							
15	3	2	088	791	12	7	13	04	78	1	1011.2	10	092	29	29	26	9	0	1	0	0	5	4	7	07	29	05	24	0	03	24	1	08	1	1								
15	3	2	088	791	18	7	13	04	78	1	1011.2	10	092	29	29	26	9	0	1	0	0	5	4	7	07	29	05	24	0	03	24	1	08	1	1								
16	4	2	075	782	00	8	11	02	10	0	1011.2	10	092	29	29	26	6	3	4	7	1	5	3	7	17	29	00	25	0	00	25	1	10	1	2	1							
16	4	2	075	782	06	9	11	07	11	1	1007.2	10	090	29	29	26	6	3	4	7	1	5	3	7	17	29	00	25	0	00	25	1	10	1	2	1							
16	4	2	066	770	12	1	13	10	10	1	1011.0	10	090	29	29	27	1	1	4	3	0	3	3	3	33	29	00	26	0	00	26	1	02	3	0	1							
16	4	2	066	770	18	1	13	07	11	1	1010.0	10	090	29	29	26	1	1	4	3	0	3	3	3	33	29	-1	25	0	00	26	1	02	3	0	1							
17	5	2	054	798	00	7	11	12	73	0	1010.0	10	080	28	28	26	7	3	0	7	3	2	7	07	29	-1	26	0	01	26	1	11	3	4	1								
17	5	2	054	798	06	7	11	12	73	0	1010.0	10	080	28	28	26	7	3	0	7	3	2	7	07	29	-1	26	0	01	26	1	11	3	4	1								
17	5	2	042	774	12	6	12	01	10	2	1008.1	10	061	28	28	26	6	3	4	3	0	3	2	4	00	28	00	25	0	00	25	1	11	3	4	1							
17	5	2	042	774	18	4	11	01	10	1	1007.3	10	061	28	28	25	4	7	6	3	0	4	2	4	00	28	00	24	0	00	24	1	11	3	4	1							

SHIP'S WEATHER OBSERVATIONS

NAME OF VESSEL

- S/S
 M/V

CALL SIGN

MAILING ADDRESS (*American addresses preferred*)

CHECK FORMS OR SUPPLIES REQUIRED

- SHIP'S WEATHER OBSERVATIONS, WB FORM 615-5
 METEOROLOGICAL RADIOTELEGRAM, WB FORM 630-9
 BAROGRAM, WB FORM 455-12

WEATHER MAP BASES

- N. ATLANTIC - U.S. INTERCOASTAL
 N. PACIFIC - U.S. INTERCOASTAL
 S. ATLANTIC - U.S. INTERCOASTAL
 S. PACIFIC - INDIAN OCEAN
 WEATHER SERVICE FOR MERCHANT SHIPPING
 ENVELOPES

INSTRUMENTS IN NEED OF SERVICE

- BAROMETER BAROGRAPH PSYCHROMETER

DO NOT WRITE BELOW

RECEIVED (*Weather Bureau Office*)

ACTION TAKEN (*Check one*)

- SUPPLIES FURNISHED AS MARKED X ACKNOWLEDGED
 ALL ACTION REFERRED TO CENTRAL OFFICE

DATE ACTION TAKEN

SHIP'S WEATHER OBSERVATIONS

NAME OF VESSEL

- S/S
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- ENVELOPES

INSTRUMENTS IN NEED OF SERVICE

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- BAROGRAPH
- PSYCHROMETER

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- ACKNOWLEDGED
- ALL ACTION REFERRED TO CENTRAL OFFICE

DATE ACTION TAKEN

Used for study of
Surface Salinity
Bottle Nos.

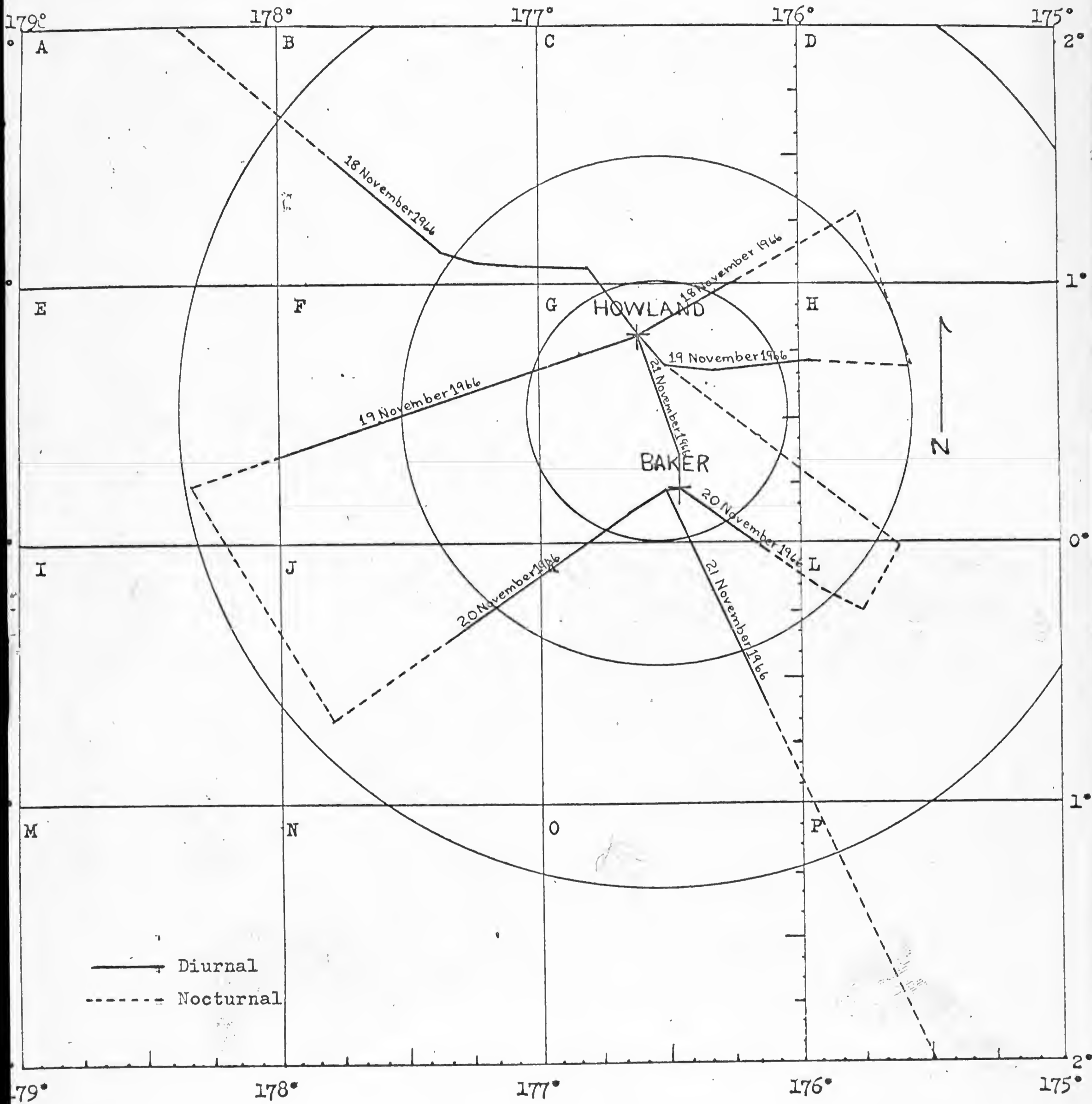


Figure 1. Southern Grid No. 12 cruise track, 18-21 November 1966.

Scale: 2 inches = 60 miles at 0° latitude.